

# Railway Age

SEPTEMBER 6, 1941

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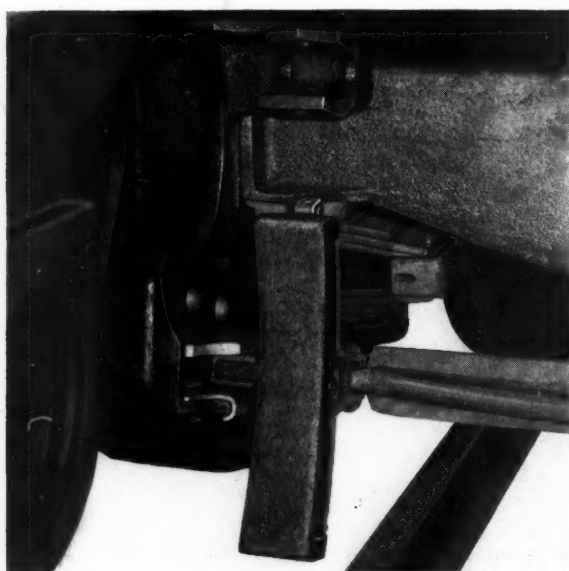
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# Railway Age

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# A FEW **FACTS** ABOUT **"Union" Centralized Traffic Control**

- ① Eight C.T.C. installations, totaling 209 miles, postponed double-tracking at but a fraction of the estimated cost of double-tracking.
- ② On one single track installation, the tonnage handled amounted to 86,558 gross ton miles per train, an increase of 89 per cent.
- ③ On ten installations, the freight train time saved averaged 1.43 minutes per mile, or an increase of 29.
- ④ One installation eliminated 46,355 train stops per year.
- ⑤ On one installation 90 per cent of the train meets are non-stop.

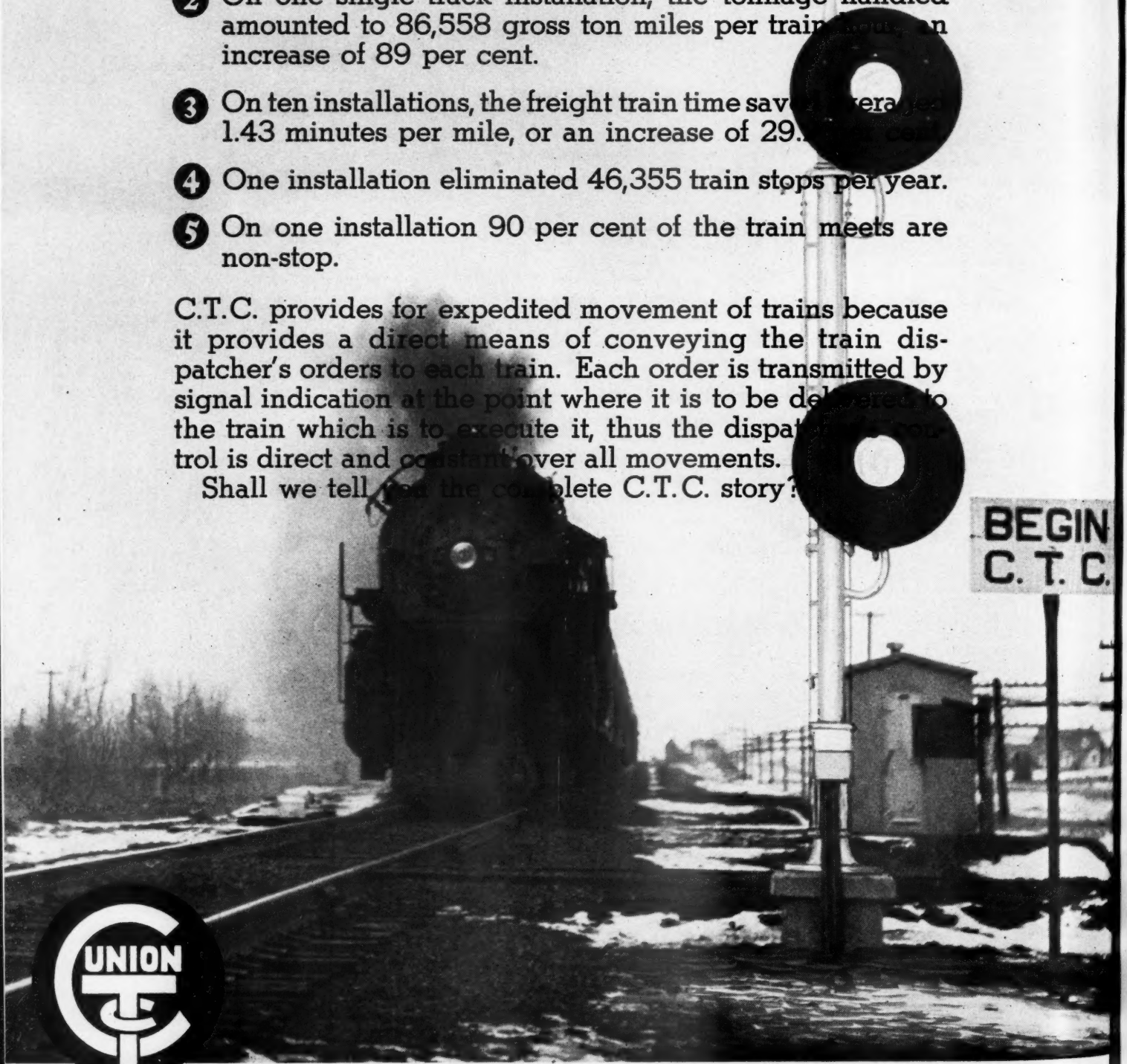
C.T.C. provides for expedited movement of trains because it provides a direct means of conveying the train dispatcher's orders to each train. Each order is transmitted by signal indication at the point where it is to be delivered to the train which is to execute it, thus the dispatcher's control is direct and constant over all movements.

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## RAILWAY AGE

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# An Ex-Communist Shows Trend of the New Deal

There is a book entitled "The Managerial Revolution" which is being widely read and has attracted the attention of some alert railroad people, and which presents with persuasiveness a message that in some respects is too important and significant to be ignored by believers in private enterprise. The author, James Burnham, puts forward the argument that stockholders of private business enterprise have largely abdicated their function of managing—a view with entirely too much truth in it—and that, consequently, the managers—i.e., not financiers, but the real executives and their staffs—are taking over and running businesses to suit themselves, and largely without regard to whether they make any money for the owners or not. This tendency, the author holds, is pushing business toward government ownership under which it will be operated by and largely for the benefit of a super-class of bureaucrats or "managers," as it actually is now being operated in Russia, and largely in Germany and Italy, today.

### Is This Occurring on the Railways?

There is too much in the book that accurately describes present conditions and trends on the railways of the United States to make it comforting reading for those who really desire the maintenance of private railway ownership as a part of a private enterprise system in this country. The *Railway Age* repeatedly has emphasized recently how much more the employees of the railways have shared in their prosperity during the last quarter of a century, and how much less in their adversity, than have their owners—i.e., their stockholders. And now, when there is opportunity for their stockholders to derive, temporarily at least, some return on their stock, we see the labor unions making a determined drive for increases in wages that would destroy even that temporary opportunity, and contending that it is the **duty of management** to help destroy it. For management to submit would plainly be for it to help promote Mr. Burnham's "managerial society" as far as the railroads are concerned. There may be, and apparently are, railway officers who don't see how this would injure them. Well, first, the railway officers accepted

a plain **duty to the stockholders** when they accepted their jobs; second, they have no **right** consistent with that duty to disregard the interests of the stockholders; and, third, it is altogether probable that, following a "managerial revolution" on the railways such as Mr. Burnham envisages, a large part of the present most important officers would be succeeded by bright and ambitious young New Dealers. These young men, as Mr. Burnham makes so clear, have no intention of failing selfishly to benefit by the revolution; and they certainly haven't failed to benefit by the very considerable progress it has made thus far.

### Attacking "Capitalism" That Is Not True Capitalism

Mr. Burnham was until recently a leader in the Trotsky faction of the Communist party. But he has recanted. He now thinks that what he calls "socialism" won't work; but by socialism he means the balmy variety which assumed that everybody was going to get equal pay and that there weren't going to be any more bosses. What Mr. Burnham calls "the managerial society" is actually what everybody else calls "state socialism"; that is what he predicts all nations are headed for; and here his arguments are most compelling excepting for one thing. That one thing, which vitiates the author's whole thesis, is his false definition of "capitalism."

He makes his definition of capitalism broad enough to include everything from medieval mercantilism to the crude mixture of state socialism and private enterprise that we have in this country today under the New Deal. Of course, every intelligent advocate and defender of private enterprise (or capitalism) concedes it can't work properly, if at all, if it is shot through with what Adam Smith denounced as "mercantilism"—that is, government interference everywhere in fixing prices and wages, high tariffs and stringent regulation. It won't work if private enterprise, supporting itself from its earnings and paying taxes, is subjected more and more to competition by state enterprise which does not pay taxes, and is largely supported by taxes levied on private enterprise—such as, for example, the competition

by tax-subsidized waterways and highways with the fully self-supporting and tax-paying railroads.

### Cannot Capitalism Provide Full Employment?

One of Mr. Burnham's main premises is that capitalism is on the way out because it has shown it cannot solve the problem of unemployment. But this is a mere assumption that he utterly fails to support with facts. True capitalism, following the prescription of Adam Smith and John Stuart Mill—that is, really free enterprise, with a minimum of monopoly, either of property or of labor, and a minimum of governmental interference—never had any difficulty in providing jobs, and actually furnished more good jobs in proportion to population than any other system ever did. It was only when government came in and fixed prices, either of goods or labor (or, what is economically the same thing, permitted private monopolies to fix them) that people began to refuse to buy price-fixed goods and services and thus caused prolonged mass unemployment. It was not true capitalism (that is, free competitive private enterprise) which stifled employment—but state socialism grafted onto capitalism by politicians, labor leaders and dumb business men, such as high tariff advocates, waterway fans and the type represented by the National Highway Users Conference.

If our federal government would remove its protection from racketeering labor politicians, would return to a basis of sound money, would quit engaging in or subsidizing business, and would cease interfering with business excepting for the purpose of controlling or destroying monopolies and monopolistic practices, whether of capital or labor, we should very soon have full employment and sustained economic recovery without the necessity of huge government expenditures. This can be stated positively—because full employment and continuous economic advancement is what we did have in this country before government encouraged big business monopolies, high tariffs and subsidies under the G. O. P. "new era"; and before it engaged in the mercantilism and state socialism of the New Deal.

### Destroying a Straw-Man Capitalism

When Mr. Burnham claims that his "managerial revolution" is the only way society can go because equal-pay "socialism" won't work and capitalism has failed, he is destroying a "straw-man" capitalism of his own definition. The people can either learn the facts by study, and decide to adopt genuine capitalism now, or they may decide to try Mr. Burnham's "managerial revolution" first, and learn to appreciate capitalism by experiencing its alternative.

We should have no quarrel with Mr. Burnham if he merely asserted that there is a strong tendency toward his "managerial society"—that is, toward state socialism with bureaucrats holding nearly absolute power. That tendency clearly exists. What we controvert is his conclusion that there is no alternative to this outcome.

There is an alternative. That alternative is **genuine** free enterprise, which is the best form of economic organization because it is the only one which conforms to man's economic nature; is the only one which assures maximum economic well-being with a minimum of labor; and is the only one ever actually tried that ever has for a long period promoted the well-being of all classes of the people of any country.

The superiority of free enterprise over any other form of economic organization is a question we have discussed before in these pages (*Railway Age*, December 7, 1940, page 851) and it is not necessary to repeat the argument here. State socialism (Mr. Burnham's "managerial society") leaves the direction of production in the hands of bureaucrats with no free markets to guide them. These bureaucrats do not know what the people want—they can only make a more or less educated guess; and, of course, they cannot come as near the truth as free markets do in discovering and meeting demands for products and in eliminating the production of things no longer wanted.

### Why "New Orders" Apparently Succeed—and Then Fail

New Dealism, or state socialism, or almost any kind of revolution, can make a fine showing for a time, because it lives during its early days on stolen goods. That is to say, the revolutionists take people's property—i. e., their capital—away from them by taxation or expropriation and distribute it among the masses; and the masses think that the "new order" has brought them prosperity. But what happens when the stolen property is all used up and a country's capital has thereby been largely consumed? Then the "new order" has to go on its own. It can no longer pass around to others the results of the thrifty people's thrift. It must find some way of restricting consumption to less than production; for capital is necessarily the result of **production exceeding consumption**; there must be a constant increase in capital to provide increased employment and products for an increasing population; and, consequently, where population increases and capital does not, there is necessarily a decline in the standard of living which leads finally to widespread destitution.

And free private enterprise, "capitalism," is the only system which ever in any country in the history of the world has increased capital fast enough to increase employment and production faster than the natural increase of population. We have the recent book of Manya Gordon, comparing present-day Russia with Czarist times, to tell us what misfits bureaucrats are in gaging the people's wants and providing for them. The Russian revolutionaries years ago consumed all the wealth that had been amassed in the regime of the Czars, and now all they have to distribute is what the present regime can produce; and Miss Gordon has shown that present production—even of such things as food, clothing and housing—is at a lower per capita level than it was in the time of the Czars.



There is your "managerial revolution" for you. Mr. Burnham's argument that we are headed toward it, the way things are going now, is a cogent one; and, in effect, he invites us fatalistically to accept this outcome as inevitable and make the best of it. Instead, what every man of brains and character ought to do is to fight the tendency with all his resources and energy. And here it is that the Burnham book is of very real value—that is, in skillfully pointing out our present policies of business and government that are pushing us toward the goal which he predicts for us. Consider this quotation from his book:

"The volume of public and private debt has reached a point where it cannot be managed much longer. The debt, like the unemployed, sucks away the diminishing blood stream of capitalism."

Who can deny the soundness of that observation? And then consider it in connection with the New Deal's announced plans to keep on spending money at the

present crisis rate for highways and other boondoggling public works, after the present "emergency" ends. Is it not inevitable, if that is to be done, that Mr. Burnham's "managerial revolution" (i.e., the establishment of state socialism) will occur? But is continuance of the New Deal "inevitable"? If so, then, indeed, all is lost.

#### The New Deal "Managers"—as Seen By an Ex-Communist

And then consider the following quotation from an author who formerly was a communist, and who makes the statements quoted, not in criticism of the New Deal, but merely to show its inevitable tendency (italics are ours):

"The firmest representatives of the New Deal are not Roosevelt or the other conspicuous 'New Deal politicians,' but the younger group of administrators, experts, technicians, bureaucrats who have been finding places throughout the state appa-

### Sauce for the Goose . . . .

It seems apparent the I. C. C. wishes to employ some arithmetical "yardstick" to divide traffic between rails and trucks. Its latest effort—Docket 28380—tells the Western railroads with respect to petroleum rates, "granting that minimum rates may properly be lower than maximum reasonable rates, the spread is in general so great that it (the railroad rate) requires justification. Such justification could be furnished by evidence that these are reasonably compensatory rates from the standpoint of cost of service. The rail respondents are in possession of the facts but they have failed to produce them."

Declaring that it would be impracticable for the motor carriers to learn the rail cost facts and too great a burden for the Commission to produce them, the Commission added: "Under such conditions, where many of the rates are plainly so far below a maximum reasonable level, the failure of the rail carriers, in full command of all of the facts, to produce them of record is a circumstance which may properly influence us in arriving at our ultimate conclusions."

That there is a reasonable doubt of the soundness of the results may be gathered from the dissent of three commissioners who say: "The rates here prescribed as minima appear to be so high that they might, under the conditions set forth in the report, be challenged as exceeding the maximum of reasonableness."

This may have been an appropriate case in which to invoke and establish this sort of rule, but it does seem unfortunate that there appears to be a Commission predisposition to institute this economic—and, indeed, moral—reform at the expense of the railroads' petroleum revenues. We recall in this connection the California, Arizona, Northwestern and South Atlantic-ports-to-inland-points petroleum cases where the Commission's conclusions resulted in paternalistic share-the-traffic decisions for the benefit of trucks and water carriers.

**It was a brilliant and fruitful bit of psychologi-**

**cal strategy which the truck operators employed prior to the enactment of the Motor Carrier Act in suggesting that the I. C. C. was "rail-road-minded." That accusation put the commissioners on challenge to disprove the charge; and what a thorough job they have made of it!**

In reducing rates for competitive reasons it is better not to reduce rates at all than too little. Readjustment of railroad rates from the previously-existing monopolistic basis to meet present day competition is a trial-and-error process. If carrier and Commission experiment with passenger fares has taught us anything it has taught us that.

The Commission has ordered reductions in passenger fares on no better evidence than that the railroads offered to sustain these petroleum rates. Why the distinction? We refer in particular to the Commission's decision in the Eastern passenger fare case. Notwithstanding that truck tariffs are filled with low rates, which have not been justified by cost evidence, shippers have been thrown out on their ears (so to speak) for even suggesting that trucks so justify their rates—and truck cost facts are more simple and less difficult to ascertain than rail.

If the ruling in this and other competitive petroleum rate cases is to govern, then it should also be applied to the trucks and they should not be permitted to continue low back-haul and other "added traffic" low rates without convincing cost evidence.

There are literally thousands of situations where this rule could properly be invoked against the motor carriers. It is the Commission's duty to do so, even without complaint. We refer in particular to its minimum rate investigations in MC Dockets 20, 21, 22, 23 and its investigation of free pick up and delivery in the Eastern District where the Commission did not require the trucks to produce evidence with respect to their own costs or to consider the truck cost evidence offered by others in arriving at its conclusions.



ratus; not merely those who specialize in political technique, in writing up laws with concealed 'jokers,' in handing Roosevelt a dramatic new idea, but also those who are doing the actual running of the extended government enterprises; in short, managers. These men include some of the clearest-headed of all managers to be found in any country. They are confident and aggressive. *Though many of them have some background in Marxism, they have no faith in the masses of such a sort as to lead them to believe in the ideal of a free, classless society.* At the same time they are, sometimes openly, scornful of capitalists and capitalist ideas. *They are ready to work with anyone and are not so squeamish as to insist that their words should coincide with their actions and aims. They believe that they can run things, and they like to run things.*"

### Then "State Intervention Really Got Going"

And consider this one describing how the government has shoved private enterprise aside under the New Deal:

"State intervention really got going. *The percentage of the national income accounted for by direct governmental enterprises doubled in five years.* A substantial percentage of the population became directly or indirectly dependent upon the state for livelihood. State controls of a hundred kinds extended throughout the economy. *Agriculture became wholly dependent upon state subsidy and control.* Export and import regulations increased, *moving toward the monopoly state control of foreign trade characteristic of the managerial state.* Private control over capital funds was curtailed by acts governing the issuance of and trading in securities, and the structure of holding companies. Money left its 'free' metallic base to become 'managed currency' under the direction of the state.

*"In utter disregard of capitalist-conceived budgetary principles, the state permitted itself annual deficits of billions of dollars and used the national debt as an instrument of managerial social policy. Tax bills were designed to secure social and political ends, rather than income.* The state, through various agencies, became by far the greatest banking establishment. In

general, measure after measure curtailed capitalist private property rights and thereby weakened the relative social power of the capitalists. In the United States the same shift occurred which had begun earlier on a world scale. The expansion of capitalist relations in the total economy was replaced by a continuous and growing contraction. The percentage of the economy subject to capitalist relations, whether measured in terms of outright ownership and operation or of degree of control, began to decrease at an ever more rapid rate."

### "New Deal Moves in Same Direction as Stalinism and Naziism"

And finally:

"No candid observer, friend or enemy of the New Deal, can deny that in terms of economic, social, political, ideological changes from traditional capitalism, *the New Deal moves in the same direction as Stalinism and Naziism.*"

There is plenty more in the book which is as sound as a gold dollar and very clearly stated. Lest members of labor unions believe that the new "managerial society,"—toward the creation of which they are being used as such effective cat's paws—will be to their liking they'd better read what the author has to say on that score.

If this book had been written by a man with any understanding of free enterprise, its popularity might be the salvation of the country. As it is—with the way free enterprise is glossed over as passé, with no consideration of how its restoration would clean up the whole mess the author so well describes—the work may well serve, as did Machiavelli's writing, not as a warning against, but rather as a guide book for, tyrants; teaching them how to perfect their technique of enslavement.

### Vogle Sets the Record Straight

The magazine "Fortune" in its August, 1941, issue published an article surveying the nation's transportation capacity—and the load likely to be placed upon it in the coming months—the article being subsequently distributed in the form of a reprint. In the course of this article it was stated that "there are ominous signs in strategic areas like New England, the Southeast, and the Pittsburgh district. Cars are piling up at a few junction points and important yards. Shipments to Britain are causing some congestion in the ports of Baltimore, Philadelphia, and New York . . . A few coal operators are complaining about not getting all the cars they asked for, a circumstance that may forebode stringencies in the coal movement as the season advances . . ."

Alvin W. Vogtle, president of the National Association of Shippers Advisory Boards and manager of traffic and sales of the De Bardeleben Coal Corporation (Birmingham, Ala.), accordingly, wrote the publisher of "Fortune", in part, as follows:

"As a shipper personally responsible for the annual movement of thousands of tons of rail freight and as president of the National Association of Shippers Advisory Boards, I obviously found the pamphlet which came to me with your letter of August 13 to be very interesting, even though my 25 years of experience as a patron of our railroads will not permit me to accept some of your statements as either accurate or justified.

"Naturally, I am not in a position to refute such state-

ments in detail, but I think that every informed shipper, railroad officer or student of current railroad developments will recognize the inaccuracy of the reporting as given on page 5 of your reprint. They will know, for instance:

"That cars are *not* 'piling up at a few junction points at important yards' in New England, the Southeast or the Pittsburgh district;

"That there is no congestion at the ports of Baltimore, Philadelphia and New York—a fact which can be proven by the daily record of the number of cars unloaded and awaiting unloading at these ports;

"That the coal trade (with which I am identified) has had no difficulty in getting cars for all the coal we can sell—nor do we anticipate any difficulties;

"That the railroads in New England are doing, and give every promise of continuing to do, a superlative job of meeting the transportation needs of that section; and,

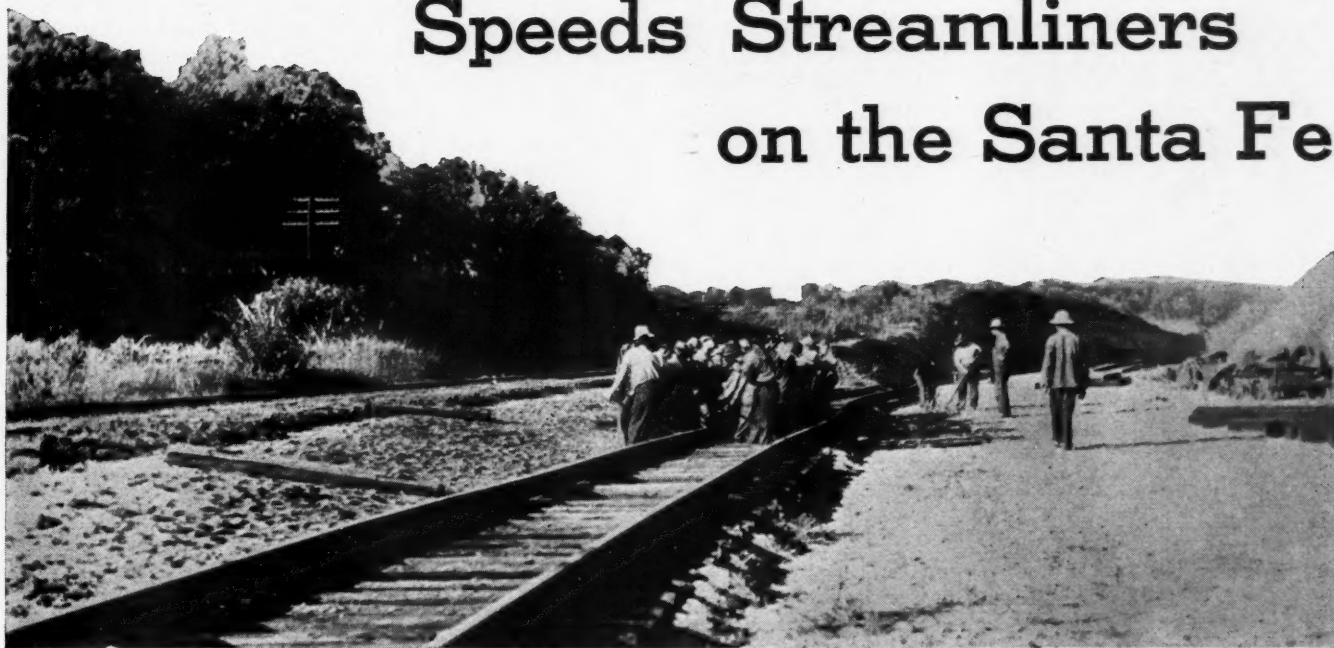
"That the railroads would be no more blameworthy for failure to blindly expand their plant facilities in advance of pyramided production estimates than Fortune would be because I cannot buy a copy of the publication today at my corner news stand in Birmingham."

Mr. Vogtle then called the attention of "Fortune's" publisher to the declaration of policy of the National Association of Shippers Advisory Boards, adopted April 30, 1941, wherein it was stated:

"The Association has full confidence in the ability of the railroads of the United States to perform under private management, with the cooperation of the shipping public and the government of the United States, the transportation services to be required of them by the National Defense program."

# Curve Reduction

## Speeds Streamliners on the Santa Fe



Lining Track by Hand at the End of Curve 103, Near Wilbern, Ill.

Improved alinement benefits other passenger schedules  
and expedites deliveries of freight at Kansas  
City and other points in Southwest

**A**S part of an extensive program of curve reduction, which the Atchison, Topeka & Santa Fe has been prosecuting to improve the operating characteristics of its line between Chicago and Los Angeles, Cal., to expedite the movement of its fleet of streamlined passenger trains, this road has recently reduced a number of curves on the Illinois and Missouri divisions. While the work in question was done primarily to reduce speed restrictions for the streamlined trains east of Kansas City, Mo., it has also been beneficial to other passenger schedules, and particularly to freight service, for it has enabled the Santa Fe to expedite early deliveries at Kansas City of freight from Chicago, and to advance deliveries comparably in all sections of the Southwest reached by its lines.

### Magnitude of Program

Indicating the magnitude of this part of the general program of curve reduction, the work east of Kansas City affected 71 curves, of which 18 were on the Illinois division and 53 on the Missouri division, 11 of which were eliminated. The work also involved the moving of 2,232,385 cu. yd. of earth and rock and the relocation of 38.6 miles of track, some of which was lined to its new position, while other stretches were built in place, where the new alinement deviated from the old too much to make the shifting of the track practicable or where the character of the ground made difficult any such movement of the existing track. In not a few cases, a com-

bination of these two methods was employed to get the track on the new alinement.

Prior to the prosecution of the curve-reduction work, there were 148 curves on the Illinois division and 215 on the Missouri division, a total of 363. While some of these curves were below the maximum established for the rate of curvature and, therefore, did not require consideration, some of those that exceed the maximum have been left for later attention. Also, in a few instances, where conditions other than curvature limit the speed, there is no economic justification for reducing the curvature to the established maximum. On the other hand, it has been feasible in many cases to develop an economical alinement that includes curvature well below the established maximum.

Between Chicago and Joliet, Ill., the line passes through a low saddle, commonly known as the Sag, and enters the valley of the Illinois river at Joliet. Taking a generally southwest course, it leaves the valley only to enter it again and cross the river at Chillicothe. From this latter point the route crosses open and generally undulating prairies, across which locating problems were at the minimum, and reaches the Mississippi river at Ft. Madison, Iowa. Despite the generally wide valley of the Illinois river and the open character of the country both east and west of Chillicothe, in locating the line, curvature was introduced freely at certain points, although there are tangents ranging up to 20 miles.

The introduction of this curvature is not open to criticism, for when this line was constructed 60 years ago,

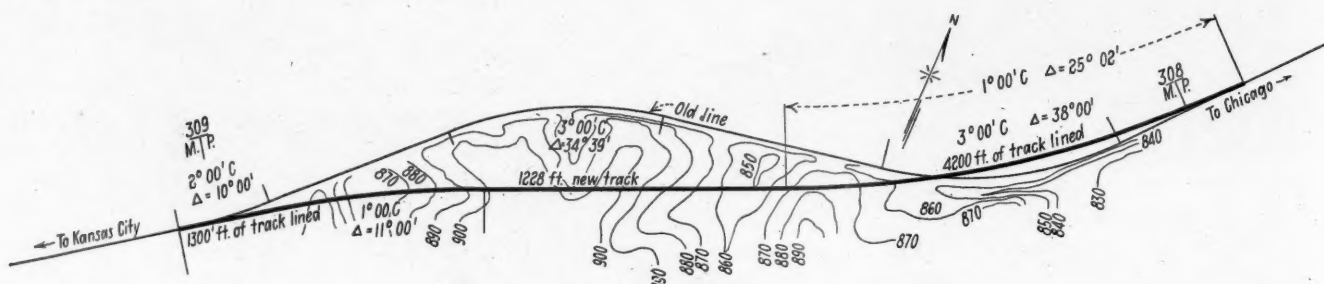


neither the amount nor the rate of curvature used placed restrictions on train operation, and no one could have foreseen at that time the shortened schedule of today. In fact, at the time of construction, that portion of the road through Illinois was heralded widely as a model of easy alinement that in large part ignored topographical obstacles.

West of the Mississippi river, the topography changes abruptly, this section being characterized by low hills and

sions. However, the fact that a maximum rate of curvature had been established did not act as a bar to reducing curvature to 1 deg. or even to 30 min., where this could be done at reasonable cost, and there were no speed restrictions for a considerable distance either way.

In effecting changes in alinement, two methods were followed. In the first, the rate of curvature for single curves was reduced without other changes in alinement. In other words, for short curves or for longer ones that



Typical Relocation, Near Gibbs, Mo., in Which 46 Deg. 37 Min. of Central Angle were Eliminated

winding watercourses in narrow valleys, with the line generally crossing the drainage. The result is that in certain sections, particularly between Ft. Madison, Iowa, and Bucklin, Mo., more than 100 miles, the alinement consisted of an almost continuous succession of curves, ranging from 30 min. to 4 deg. Between Bucklin and the Missouri river, 84 miles, the topography becomes more favorable, the number of curves is relatively less, the curvature is lighter and tangents up to 13 miles long were used. West of the Missouri river, the country again becomes broken, and curves were introduced into the alinement for the remainder of the distance into Kansas City.

#### Maximum Curvature 1 Deg. 30 Min.

Preliminary to the general program of curve reduction, 1 deg. 30 min. had been selected as the maximum rate of curvature, and this maximum was applied to all of the work undertaken on the Illinois and Missouri divi-

required only a small reduction, say from 2 deg. to 1 deg. 30 min., or less, the shoulder of the roadbed on the inside of the curve was widened enough to accommodate the new alinement and the track was lined over to its new position. For others that were longer or sharper an independent roadbed was constructed, but, in general, the shift of the track was made in the same way.

In the second method, where two or more curves were involved, the line was relocated within the limits of the group, so that the total central angle, as well as the rate of curvature, was affected in most cases. In this method, with one exception, not more than three curves were included in any group, not as a matter of predetermined policy, but because in each case this happened to give the best working basis for making the location, or a satisfactory location could be made that affected the minimum amount of track, particularly in the rough country west of the Mississippi river. In some instances, 11 in all, two curves on the new alinement took the place of three



Grading for New Alinement, Curve 103, Near Wilbern, Ill.



on the old line, with a corresponding reduction in the total central angle. In a few of these instances the new alignment diverged so little from the old that it was possible to line the track over to its new location.

On the relocations on the Illinois and Missouri divisions, and curves that were reduced without other changes in alignment, spirals were established on the basis of 1.22 in. of lift per second at the maximum permissible speed around the curves.

On the two divisions, the curves that were included in the program had an aggregate central angle of 2,478 deg. 34 min. In the prosecution of the work, 364 deg. 12 min. of central angle were eliminated. At first glance this may seem small for so extensive a project of curve reduction. It is well to bear in mind, however, that while the desirability of reducing the central angle as well as the rate of curvature was not lost sight of at any time, a large number of the individual projects consisted of single curves, in which cases there was no opportunity to reduce the central angle.

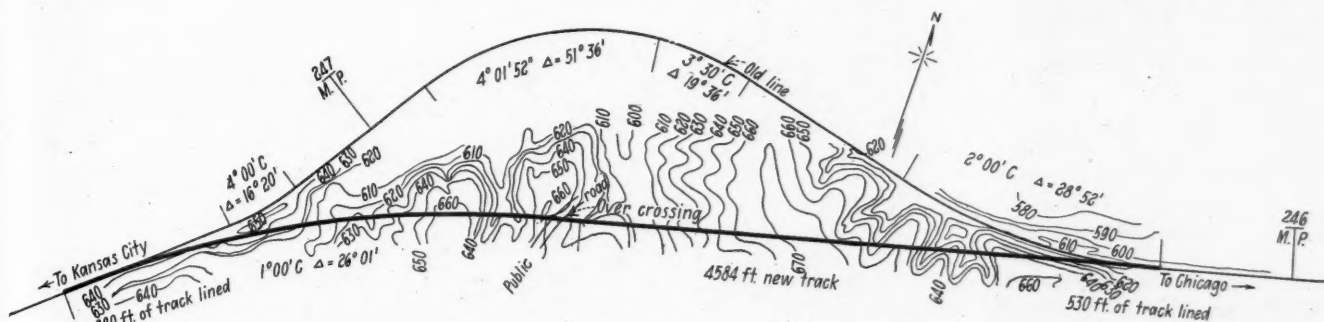
### Grading Was Completely Mechanized

Not the least interesting feature of the work was the amount and variety of power equipment employed in the grading operations and for other purposes, all of which was motorized. All of the grading required for both the simple curve reductions and the line changes was done under contract. All contractors used modern off-track equipment of large capacity, which included scarifiers, draglines, power shovels, power graders, elevating graders, scoops and tractors with angle dozers and bulldozers and other types of blades. Haulage was accomplished with tractors and trailers, motor trucks, trucks



Two 3-Deg. Curves Were Reduced to 1 Deg. 30 Min. and 35 Deg. of Central Angle Were Eliminated on this Relocation, Near Kenwood, Mo.

was reduced to 1 deg. 30 min., without change in the central angle. The length of the line change was only 3,423 ft., yet it involved the movement of 114,000 cu. yd. of material in grading, the installation of approximately 1,400 ft. of subsurface drains, the construction of 1,810 ft. of new track and the lining over a maximum of 110 ft. to new position, of 5,035 ft. of existing track. In the grading operation a dragline and a power shovel were used for excavating the material; tractors with trailers, motor trucks and dump trailers were used for haulage; a tractor fitted with an angle dozer was employed to



This Relocation, Near Argyle, Ia., Requiring 287,000 Cu. Yd. of Grading, Eliminated More Than 90 Deg. of Central Angle

and tractors, dump wagons and dump trailers, crawler-mounted wagons and carryalls. Jordan spreaders were used to reduce the shoulder of the roadbed and to spread material deposited along embankments, this being the only on-track equipment employed in the grading operations.

Wherever earth was to be deposited on the slopes of embankments, they were roughened or terraced to eliminate cleavage planes between the new and old materials and thus prevent slippage of the added material. All new embankments, including material deposited for the purpose of widening existing embankments, were consolidated by means of sheepsfoot rollers to solidify the embankments and reduce settlement to the minimum. Including this latter machine, 17 different types of grading equipment were employed on the project as a whole.

Curve No. 103, a short distance west of Wilbern, Ill., may be cited as a typical example of the heavier work on the Illinois division. This was originally a 4 deg. curve having a central angle of 42 deg. 02 min., which

spread the material on the embankment; and a sheepsfoot roller compacted it.

A similar project involving much lighter work was that of curve 97, a short distance east of La Rose, Ill. This curve was originally 3 deg. .04 min., and was reduced to 1 deg. 30 min., with the same central angle, 24 deg. .03 min. The line change was 2,103 ft. long and involved approximately 5,000 cu. yd. of grading. A dragline was used to excavate the material, which was hauled to place by tractors and trailers, while a tractor equipped with an angle dozer, and a sheepsfoot roller spread and compacted the material as it was delivered in the embankment. In this case it was not necessary to construct any new track, since the maximum throw was only 43 ft., and the existing track was shifted to the new alignment.

Another project east of Lomax, on the Illinois division, involved the elimination of one curve in a group of three. This group consisted originally of a 30-min. curve to the left, having a central angle of 3 deg. 49 min.; this was

(Continued on page 375)

# Utility Commissioners Meet

Budd pleads for dispatch in crisis—Disapprove I. C. C. control of truck size, but favor "reciprocity" to cut down truck fees

**A** PLEA for greater dispatch in handling freight cars was made by Ralph Budd, transportation commissioner of the Advisory Commission to the Council of National Defense, in an address before the annual meeting of the National Association of Railroad and Utilities Commissioners at St. Paul, Minn. August 26-29. "Freight cars in actual use," he said, "are moving only a little over 10 per cent of the time, or about 2½ hr. in 24 hr. If this 2½ hr. of actual movement could be increased to 3 hr. a day, a 20-per cent enlargement of the transportation plant would be achieved.

"The practical approach to this problem, of course," said Mr. Budd, "is to reduce the 21½ hr. daily that the cars are not actually moving, rather than to increase the already fast train speeds. Shippers and carriers everywhere are working upon it, and I am certain that better utilization of freight cars will be obtained."

Mr. Budd sounded a warning of inevitable rail car shortage unless the current complications are ironed out in the control of steel and other materials. He stated that on June 1, 1940, the railroads owned a total of 1,648,696 freight cars, and that in July, 1940, it was decided that the ownership should be built up to 1,700,000 cars by October 1 of this year.

"Normally, about 80,000 cars," Mr. Budd said, "are retired every year through age or accident, but it was decided to repair as many of the old cars as practicable so that they could be used for four or five years longer. In this way retirements have been reduced about half. The new car building program, in order to raise the ownership to 1,700,000, called for about 100,000 new cars by October 1, 1941. From June 1, 1940, to June 1, 1941, orders were actually placed for 112,320 cars. Owing to inability to obtain material for carrying out this program, I regret to say that by October 1, 1941, the program will fall about 20,000 cars short.

"Early this year, plans were made to bring the total railroad ownership to 1,800,000 cars by October 1, 1942. If this goal is to be reached, about 160,000 new cars must be built between October 1, 1941, and October 1, 1942."

Mr. Budd predicted that the proposed expansion in railroad freight cars by October 1 of next year will fall 100,000 short unless some way is immediately found to supply more steel, iron, lumber and other essential materials to the railroads and to the car builders. He continued, "New locomotives are also badly behind promised delivery dates. Deliveries of maintenance and repair parts not only for cars, but also for locomotives, and to a necessary extent for repair to tracks, bridges and structures, have slowed down and now threaten seriously to impair the operation of the railroads. It is true the roads have not failed yet, and their record to date indicates that they will not fail if arrangements can be made promptly for securing the necessary materials, but otherwise failure is inevitable."

Mr. Budd revealed that at present there is an acute shortage in local transit, urban and interurban bus service. He said that the sudden enlargement of defense plants and the building of new plants have so

greatly increased local travel in many cities that the transit and bus companies are unable to meet current requirements. He expressed the belief that the state railroad and utility commissioners could be of real assistance in checking the application of bus and street railway operators for priorities, thus enabling the operators to secure additional new equipment to meet current and future peak demands.

Mr. Budd asserted it was not his purpose to advocate the curtailment of automobile manufacture beyond the extent necessary, but he expressed the conviction that the manufacture of the limited number of public conveyances for passengers would not lead to the reduction of the number of new automobiles.

## Defense Tempers Commissioners

A desire to insure the success of the national defense program dominated the convention and influenced deliberations. In his annual address President James W. Wolfe, commissioner of the Public Service Commission of South Carolina, said that it is fitting that the general theme of the convention should be national defense, since the regulatory bodies play an important part in the defense program. He said that a transportation surplus had been transformed into a shortage in the twinkling of an eye and that in meeting the new problems, members of regulatory bodies have new and important functions to consider as a result of priorities, embargoes, and the needed added efficiencies in transportation.

A resolution opposing a proposal of the Interstate Commerce Commission for legislation giving that body jurisdiction over sizes and weights of motor vehicles used in interstate transportation caused considerable debate. As finally adopted the resolution expressed opposition to federal legislation restricting sizes and weights as an "unwarranted interference with state control over highway maintenance" and instructed the officers of the association to oppose such legislation.

Officers elected for the ensuing year are as follows: President, J. D. Jones, chairman of the Missouri Public Service Commission, Jefferson City, Mo., first vice-president, F. W. Matson, chairman of the Minnesota Railroad and Warehouse Commission; second vice-president, Wade O. Martin, chairman of the Louisiana Department of Public Service; general solicitor (reelected) John E. Benton, and secretary, (reelected) Ben Smart. Dallas, Texas was selected for the 1942 meeting.

## Reciprocal Agreements Between All States is Goal

Reciprocal agreements between all states "to the end that there shall be a free and unhampered flow of transportation by motor carriers" was made the goal of the association when it adopted a resolution presented by the Committee on Progress in the Regulation of Transportation Agencies. In presenting the resolution the committee said, "Although national defense is occupying our minds and energies today, we still find that a great deal of strife exists between the states on questions of reci-



procuity. These barriers which have been established due to public utility taxes and other imposts, must, in our opinion, be eliminated as rapidly as possible. Some of our states have public utility taxes; others do not, and under present regulations entering into reciprocity, agreements may be a financial loss temporarily, but in the final analysis the financial loss will be small when we take into consideration the many benefits which will accrue to all of the states by complete reciprocity."

In commenting upon motor transport rates the report said, "Some states have made progress in the past year in furthering the establishment of rates of motor transportation companies, but for the most part the tariffs have been permitted to conform with rail rates without regard to the soundness of such conformance and without taking economic principles into consideration. In other words, with certain exceptions, there have not been many studies made which have actually shown the proper costs for the transportation of property by motor carriers, and until such studies are made and rates are put into effect accordingly, it is our feeling that sound regulation of motor carriers is impossible. It is the duty and obligation of state regulatory commissions to establish a proper rate structure for motor carriers in order that the public will be protected, in order that proper relationship will exist between rail and motor carriers and in order that the motor carriers themselves will receive adequate compensation for the safe conduct of their business."

This committee also recommended that a procedure be developed whereby applications for the discontinuance of passenger trains be handled by joint hearings in which all commissions involved be represented. "The evidence," the report continued, "could then be reviewed jointly by the state commissions involved and such procedure would result in uniform decisions by the various state commissions participating in such proceedings. The present situation often results in the granting of an application for authority to discontinue service in one state without the same authority being granted in another state through which the service extends, thus making it impracticable for the carrier to exercise the authority granted. These inconsistent holdings would be abolished if a system of joint hearings was inaugurated."

"National defense," the committee concluded, "can best be served by sensible adherence to the present regulatory requirements as to transportation by both federal and state commissions. Relaxation of regulation of transportation will result in confusion and will not be conducive to fast and economical transportation. Technical regulatory requirements can be waived where they result in a hindrance to transportation, but relaxation or abandonment of all regulatory requirements will result in such confusion that the transportation system will bog down and national preparedness will suffer."

### Expect Airplanes to Carry Freight

When peace dawns it is reasonable to believe, according to a report made by a special committee on Rates of Transportation Agencies, that the airplane will direct its efforts towards the transportation of those commodities necessary and desirable to a country and its people who are at peace. To what extent the airplane will encroach upon what the rails and trucks believe to be their field of operations, the report says, may well be left to imagination.

"The Committee believes," the report continues, "that the greatest problem confronting the transportation world today is the coordination of existing agencies of transportation. The public is entitled to the lowest transporta-

tion costs possible, consistent with the maintenance of good transportation, but it should not be compelled to pay inflated charges for transportation rendered by an agency not suited to perform a particular service."

"Lack of coordination between the various types of carriers promotes wasteful transportation, with its attendant increased costs. Without any compensating increases in the charges, which it is doubtful if the traffic can sustain, this may bring about a condition whereby government ownership, so objectionable by many, will be the only solution. The efforts of the Board of Investigation to find the answer to this problem will not be enough. It will necessitate the combined efforts of all of us, whether we are engaged in the field of regulation, legislation or management, to the end that transportation may remain within the realms of private ownership with all of its initiative and ingenuity; that the arteries of commerce may be kept in a healthy condition and enable them to distribute goods throughout the nation at low cost and with reasonable dispatch."

In its discussion of rates, the committee said, "It has been the contention of competing agencies of transportation that generally the rates of one should be no higher than that of the other. Without referring to any specific cost data, it can be stated safely that there are differences in cost of operation as between the railroads and the truck lines, especially as affecting different classes of traffic. It is by no means certain that the costs of service of the railroads and the competing truck lines justify the requirement that the truck lines shall not charge rates or freight charges on merchandise traffic less than the railroads. It is questionable whether just and reasonable maximum rail rates should be prescribed as lawful minimum rates for truck lines. In other words, if truck costs are lower than rail, the public should receive the benefit of such lower costs of transportation wherever possible. That statement relates to policy and is not to be taken as a criticism of the commission, because it is well known that at least in the major cases such action was taken either to protect the financial condition of the carriers, or to lend stability to the rates, or both, and emergency action was believed proper."

### No Hope for Uniform Classification

No hope for a uniform classification was held by J. A. Little, rate expert of the Nebraska State Railway Commission, in his presentation of the report of a Special Committee on Uniform Motor Freight and Rail Classification. "The real issue in the field of uniform classification," he said, "is whether classification and governing agencies care to be consistent in their publications and in exception tariffs. At present, he said, railroads may publish a rate but in certain cases may change it from first class to third class by exception. The existing rail class rate may become the minimum for trucks."

He was of the opinion that too much attention has been paid to the scale of rates and not enough to the classification.

"In the past," the report of the committee said, "the Interstate Commerce Commission has considered the general issues relating to freight classification, and the special issue involving the much desired uniform freight classification in separate proceedings entirely unrelated to the determination of lawful class rate scales. It has been juridically and practically impossible, under such circumstances, for the Interstate Commerce Commission to establish a uniform freight classification and simultaneously make effective a class rate structure which will harmonize with such a classification of freight."

"The decisions of the Interstate Commerce Commis-



sion relating to classification, and the separate decisions relating to class rates, justify the conclusion that uniform classification is a primary objective of regulation by both state and federal commissions, the groundwork for which has been thoroughly laid, and is, therefore, presently attainable. It seems plain that if this reform is now to be assured it must be supported vigorously by those who believe that uniform classification is an essential basis for the prescription of reasonable non-preferential and non-discriminatory class rates in the pending *Class Rates* 1939 proceedings.

"The cost of service data offered by Dr. Ford Edwards at the St. Louis hearing in that proceeding on July 10, 1941, show relatively small variations in the cost of service for traffic loading similar tonnage in the same class of equipment in all the rate-making areas involved in that proceeding. These cost-of-service analyses show that the cost per hundred pounds of transporting a commodity which will load one ton in a box car is greater than the cost per hundred of transporting commodities of greater weight in relation to bulk which will load 5, 10, 15 or 20 tons per box car load. The basis classification principle of weight in relation to bulk is therefore a fundamental factor in cost of service appraisals.

"A uniform classification of commodities based on weight which can be loaded in standard cars is an essential basis for attempting the use of cost of service data in rate making. In repeated recent annual reports to Congress, the Interstate Commerce Commission has called attention to the growing necessity for determining cost of service as a basis for rate making, having regard for the difficulty of exercising a sound control of competitive rate making in the public interest.

"It is the conviction of your committee that the prescription of a uniform classification is practical, more necessary now than ever before and will constitute the solid foundation for a rate structure which can and should be prescribed to remove any undue preferences, prejudices and unjust discriminations found to exist in rates and rate structures within particular rate territories and between the several existing ratemaking areas of the United States. The state commissions should lend their full support to the Interstate Commerce Commission in its efforts to solve these twin problems of uniform classification and class rate structure."

#### Regulation of Water Carriers

Questions resulting from the application of Part III of the Interstate Commerce Act to water carriers were discussed by George E. Talmage, Jr., director of the Bureau of Water Carriers of the Interstate Commerce Commission. One of the problems to which he referred was that of determining whether a carrier is common or contract. "The line of demarcation," Mr. Talmage said, "between common and contract carriers by water has not yet been drawn clearly by decisions of the commission. I am not convinced that the long line of Admiralty decisions in liability cases can give us the true answer. Such decisions, of course, have in all cases been concerned with the liabilities of the parties and the court decisions establishing that a vessel owner or charterer was or was not a common carrier were made for purposes of establishing the scope of the carrier's liability. A common carrier by water may not limit his liability as a bailee for hire except in accordance with the permissive provisions of the Harter act which permit him, under certain conditions, to limit his liability by specific provision in his contract of affreightment. A contract carrier by water may, however, limit his liability in any way mutually

acceptable to the parties to the private contract of affreightment. Probably as a result of the Admiralty decisions referred to, a view has been prevalent that a carrier was a common carrier by water only if it handled commodities in less than full cargo lots, whereas if it transported only in full cargo lots, or even in parcel lots, it was by that fact alone a contract carrier, notwithstanding that the vessel may have generally sought from the public such full cargo or parcel lot shipments. I am personally unable to accept that view.

"It seems to me that here is the clear guidepost. Since there is specific provision in Part III that the adoption of that regulatory legislation does not affect the liabilities of parties at Admiralty, it seems to me clear that the commission need not be bound by Admiralty liability decisions as to whether a carrier of a certain type is a common or private carrier for the purposes of limitation of liability, and may accordingly decide the nature of the transportation solely on the basis of the statutory definitions of common carriage and contract carriage contained in Part III. It appears also clear to me that a vessel owner who transports by single voyage charters in full cargo lots, but seeks such cargoes from the public generally, must be considered to be a common carrier in full cargo lots. Certainly railroads do not become contract carriers because they restrict certain rate application to full car-lot quantities; nor would a railroad become a contract carrier as to the particular transportation by the publication of trainload rates since it holds itself out to transport under such trainload rates for any shipper offering. A true contract carrier by water, in my opinion, is one under continuing commitment to a given shipper involving something other than a single voyage full-cargo charter contract; further the contract must be bilateral and require that the shipper be under obligation greater than merely to ship the one-cargo lot and to pay the freight charges therefor.

"I am not going to deal at any length with the question of rate regulation of water carriers under Part III or regulation of through rates of water and rail carriers as required to be established by the statute, or of water and motor carriers as permitted by the statute. There are, of course, opposing schools of thought as to the principles on which such rate regulation should proceed. One school holds that water transportation rates should be permitted on any level reasonably compensatory for the water carriers, with complete disregard of relationships to the rail or motor rate structure. The opposing school holds that some direct principle of relationship must be worked out if a co-ordinated national transportation system including water, rail, and highway carriers, as well as other means of transportation, is to be accomplished. Probably, as in most such controversies, the proper answer lies somewhere between the two views."

#### 34,500 Persons Killed in Motor Vehicle Accidents

A total of 34,500 persons were killed in collisions of motor vehicles with persons and other vehicles and objects in 1940, according to the committee on Safety of Operation of Transportation Agencies. The following table shows the number of deaths resulting from collisions of motor vehicles with other objects:

Year	All deaths	With pedestrian	With other vehicles	With railroad trains	With street cars	With bicycles	With horse-drawn vehicles	With fixed objects	Non-collision accidents
1938	32,582	12,680	8,780	1,489	165	890	990	7,590	
1939	32,600	12,300	8,650	1,350	150	900	1,000	8,250	
1940	34,500	12,500	9,950	1,750	150	900	1,150	8,100	
% change	+6	+1.7	+15	+30	...	...	+15	-18	

The committee made 10 recommendations for reduc-

ing railroad and highway accidents. These are as follows: (1) adoption of railroad-highway grade crossing standard of the Association of American Railroads; (2) laws requiring pedestrians to travel in the lane against traffic; (3) legislation governing highway-railroad grade crossings in keeping with sections 102-105 of Article XIII Act V of the uniform Act Regulating Traffic on Highways; (4) municipal ordinances requiring a clear view of railroad tracks at street or highway grade crossings; (5) safety campaigns in schools; (6) elimination of grade crossings; (7) location of highway warning signs in keeping with present day speeds; (8) full authority for enforcement of traffic laws; (9) national uniform rules for passengers, employees and motorists to promote safety on railroads and (10) protection of minor highway-railroad grade crossings.

### Erase Barriers or Federal Government Will

In a discussion of border difficulties, P. A. Frye, secretary of the Louisiana Public Service Commission, urged state commissions to erase federal barriers or the federal government will. In a review of state laws he showed that while states have a right to set up protecting laws no state can establish custom laws except for the inspection of commerce moving into the state. The powers of Congress and the constitution, he added, are now being applied very broadly, with the result that even intrastate commerce, when some interstate angle is involved, is being regulated by the federal government.

Andrew F. Schoepel, chairman of the State Corporation Commission of Kansas in a discussion of state laws, took the position that state regulations came about through the ordinary process of states, and if they restrict the flow of commerce, they should be removed by co-operative action by the states rather than by the federal government. In his comments upon motor carriers, he asserted that motor vehicles have made as much progress in 10 years as the railroads have in 40 years. "The number of trucks in the United States," he said, "has increased from 326,000 in 1920 to 4,500,000 at the present time and if state regulations were outmoded it would have stifled this expansion." In his remarks upon highway development, he said, there were only 75,000 miles of major roads that had any military value, 5,000 miles of surfaced roads of less than 18 ft. and 2,000 bridges that can support more than two tons.

## Curve Reduction Speeds Streamliners on the Santa Fe

(Continued from page 371)

followed by a curve of 2 deg. 06 min., also to the left, with a central angle of 9 deg. 37 min.; and a curve of 2 deg. 08 min. to the right for 8 deg. 41 min. In the relocation, the 30-min. curve was extended to 9 deg. 01 min., the second curve was eliminated and 4 deg. 18 min. of 30-min. curve was substituted for the curve to the right, thus reducing the total central angle by 8 deg. 46 min.

In this case the line change extended 5,309 ft. and involved the placing of 49,100 cu. yd. of material, most of which was borrow. The grading equipment included a tractor and carryall, an elevating grader, a power grader, a number of 1½-ton motor trucks and a sheepsfoot roller. It was also necessary to install one culvert on the new alignment, a reinforced concrete pipe. Despite the extent of the revision of alignment, divergence of the

new line from the old line was surprisingly small, not exceeding 83 ft. at any point and, since there were no topographical obstructions, the track was all lined to its new position.

Substantially all of the work on the Missouri division was heavier than in the more open country on the Illinois division. A typical example of the work on this division was three curves near Argyle, Iowa, the first of which was 2 deg. to the right with a central angle of 28 deg. 52 min.; followed by a 4-deg. curve to the left, for 71 deg. 12 min.; and then a 4-deg. curve to the right for 16 deg. 20 min.; making a total central angle of 116 deg. 24 min. In this case the line change was 6,094 ft. long and involved more than 287,000 cu. yd. of grading. In the relocation, a single curve of 1 deg., 2,600 ft. long, was substituted for the original three curves, thus eliminating 90 deg. 24 min. of central angle.

While this project was typical of other relocations on the Missouri division, the volume of grading was exceeded at only one other point. On this job, the contractor employed a 2½-yd. dragline and a 2-yd. power shovel for excavating the material; 11 crawler-mounted wagons and trailers, each of 7 cu. yd. capacity, and 6 tractors for haulage; 1 tractor with blades and a bulldozer for spreading and leveling the material in the embankment; and a sheepsfoot roller for compacting it. This relocation also required the construction of five culverts, three of concrete pipe and two 6 ft. by 6 ft. concrete boxes. An overhead highway crossing was also constructed of creosoted material. In this case new track was laid the full length of the diversion, except for a short distance at each end, where the old track was lined over.

All track work was done by company forces. Where the throw was slight, it was done with lining bars in the ordinary way. In a number of cases, somewhat greater shifts were handled with locomotive cranes. For still greater shifts, tractors were employed and not only did the work effectively but with a marked saving in time and labor. The effectiveness of this method was increased by placing skid rails across the gap between the old and the new positions of the track. Shifts up to 90 and 110 ft. were made commonly in this manner, and in one case the track was lined over 185 ft. In fact, in some instances, the track was moved over as much as 100 ft. almost as quickly as it could be lined over two or three feet with lining bars.

The entire project was carried out under the general direction of G. W. Harris, chief engineer, system. The surveys were made, the plans were prepared and the work was executed under the direction of H. W. Wagner, chief engineer, Eastern Lines. T. H. McKibben, division engineer, was in charge of the field work.

ELECTRIFICATION of virtually all of the main lines of the Swiss Federal railroads has been a blessing during this war period. This middle-European country finds it virtually impossible to import coal or fuel oil for industrial purposes and were it dependent on steam locomotives for motive power would be in an extremely serious situation. Motor transportation is now "out" because gasoline is even scarcer. As a matter of fact the shortage of motor fuel has necessitated the virtual elimination of transportation by motor vehicles, and traffic on the Swiss railroads has increased so tremendously that excursions and tours and pleasure passenger traffic generally have had to be curtailed.

Even during the war electrification has been extended on certain privately-owned railroads in Switzerland. On June 1 electric traction was inaugurated on the 18-mile-long Andermatt-Disentis section of the Furka-Oberalp railway. And now it is announced that the 42-mile-long Andermatt-Gletsch-Brig stretch of this line is also to be converted to the use of "white coal."



# High-Capacity Steam Passenger Locomotives\*

Designing freight locomotives for high speeds—Comments of author and discussers on future trends

By P. W. Kiefer,

Chief Engineer Motive Power and Rolling Stock, New York Central System

AS previously noted, the J-3 class was equipped with roller bearings throughout, including the driving wheels. The possibility was recognized that forced vibrations of the unsprung mass of the closely fitted roller-bearing driving-wheel assemblies caused by the overbalance and the elastic foundation of the track structure might be sufficient during high-speed slipping to cause the wheels to lift from the rail. Freedom from lost motion and smooth-running machinery are highly desirable characteristics of this type of driving-wheel-and-axle assembly, and in order definitely to determine (1) the rotational speed at which the driving wheels actually lift from the rail, and (2) whether this speed would approach or possibly fall below the maximum recorded slipping speed of 120 m. p. h. on this class of engine, a program of slipping tests was formulated and conducted in April, 1938.

No damage to the locomotive occurred in any of these tests and the two questions postulated were definitely answered because the rotational speed of 164 m. p. h. necessary to lift the wheels from the rail exceeded by 44 m. p. h. the highest known slipping speed of these engines.

[Mr. Kiefer next briefly outlined the methods employed by the New York Central in making standing locomotive tests and set forth the improvements in front-end arrangements which were made in both Class J-1 and Class J-3 locomotives as the result of tests conducted at Selkirk by this method. These tests were described in a paper by W. F. Collins, engineer of tests, New York Central, before the 1940 annual meeting of the Railway Fuel and Traveling Engineers' Association. For an abstract of this paper see the *Railway Age*, January 18, 1941, page 177.—Editor.]

## Two 4-8-2 Locomotives Converted for Passenger Service

With the full complement of 275 Hudson type on the System, it was found that the passenger traffic could be handled satisfactorily under normal conditions but that, during peak periods in the holiday seasons, it was necessary to use some of the older K-3 Pacific type for the excess traffic. As these units were gradually retired and assigned to secondary or branch-line service, there remained an insufficient number available for this supplemental operation and, as the trains handled often demanded greater power than these engines possessed, they were not satisfactory for this purpose.

For these reasons the 4-8-2 Mohawk-type freight en-

gines, class L-2, were occasionally used in emergency passenger service during heavy-traffic periods but were limited to 60 m. p. h. due to riding qualities and the difficulty of maintaining satisfactory running conditions with the friction-bearing driving boxes.

These engines were built during the years 1926 to 1930. When the acquisition of new freight power was lately under consideration, necessitating complete review of the design, with a number of important changes, the question arose as to whether the new design could be so arranged as to preserve the general character of freight locomotives and at the same time serve satisfactorily in passenger service during periods of peak traffic.

Consideration was given to the design and construction of a sample locomotive to be given a thorough test and

Table VI—Refinement of the 4-8-2 Type for Passenger as Well as Freight Service

Type of locomotive	4-8-2	4-8-2	4-8-2
Road class	L2d	L2d (conv.)	L3a
Date built	1930	1939	1940
Max. tractive force, engine, lb.	60,620	60,100	60,100
Max. tractive force, booster, lb.	12,400	13,750	.....
Weights in working order, lb.:			
Engine truck	59,150	65,400	70,400
On drivers	250,000	257,000	262,000
Trailing truck	61,000	62,700	56,100
Total engine	370,150	385,100	388,500
Driving wheels, diameter outside tires, in.	69	69	69
Cylinders, diameter and stroke, in.	27 x 30	25½ x 30	25½ x 30
Boiler:			
Steam pressure, lb.	225	250	250
Diameter, first ring, inside, in.	82¾	82¾	82¾
Combustion chamber length, in.	51	51	63
Firebox volume, cu. ft.	510	510	538
Gas area through tubes and flues, sq. ft.	9.45	9.45	9.33
Grate area, sq. ft.	75.3	75.3	75.3
Heating surfaces, sq. ft.:			
Evaporative, total	4,556	4,556	4,676
Superheater	1,931	1,931	2,082
Tender:			
Water capacity, gal.	15,000	15,000	15,500
Fuel capacity, tons	28	28	43
Trucks	6-wheel	6-wheel	6-wheel
Max. i. hp.	3,800	4,200	4,400*
at m. p. h.	48	50	55*
Max. d. b. hp.	.....	3,640	3,800*
at m. p. h.	.....	43	48*

\*Estimated.

trial but, because of the time involved and the complications usually present in an undertaking of this kind, it was decided that one or two of the L-2 class should be converted for high-speed passenger service, thus making possible early development of experience background for the design of the new engines, an order for which could then be placed without undue delay.

Two of the L-2 class, Nos. 2995 and 2998, were selected for this purpose and the following principal changes were made to provide satisfactory operation in passenger service at speeds of 80 m. p. h. and at the same

\* An abstract of the second part of a paper, contributed by the Railroad Division, which was presented at the semi-annual meeting of the American Society of Mechanical Engineers held at Kansas City, Mo., June 16 to 19, 1941. For the first part see page 273 of the August 16 issue.



time maintain suitability for freight operation equal to the L-2 class:

- 1—Boiler pressure was increased from 225 to 250 lb. per sq. in.
- 2—Cylinder diameter was reduced from 27 in. to 25½ in. for a starting tractive force equal to the L-2.
- 3—Lightweight reciprocating parts.
- 4—Dynamic counterbalancing of all drivers.
- 5—Roller bearings on engine truck, tender truck, and drivers on No. 2998.
- 6—Roller bearings on engine truck and tender truck on No. 2995.
- 7—Coal pushers in the tender.
- 8—Lateral-motion device on front drivers.
- 9—Improved radial buffers between engine and tender.
- 10—Cast-steel pilots and drop couplers.

The two locomotives were released for service in August, 1939, and have been successfully handling main-line passenger trains since that time, except that one of them was removed from service for exhibition at the World's Fair throughout the 1940 season. As of December 31, 1940, a total of 200,000 miles had been accumulated on the two engines and no special difficulties of operation or maintenance have been experienced during this period of service. Table VI shows the dimensions and principal characteristics of the original and the converted engines.

#### Track Tests, L-2d Converted

The weight of the two converted class L-2 locomotives had been increased about 15,000 lb. over the standard L-2 and it was essential to determine whether these engines, with 69-in. driving wheels and the modifications referred to, could be operated at the passenger-train speed of 80 m. p. h. without imposing excessive stresses on the track structure. For this purpose, track tests were conducted in September, 1939, which included one of the J-1 class as well as the two converted engines, in order to obtain comparative information, as the J-1 class, during approximately 200,000,000 miles of operation, had never been known to produce any harmful effects on the track.

Two 170-ft. test sections were used, located about one-half mile apart on the inside westbound high-speed main track No. 1 of a four-track system. Both sections are on an ascending grade of 0.315 per cent, one comprising tangent track and the other a curve of 1 deg. 8 min., selected so that each test was run continuously over both sections without reduction in speed for the curve.

The rail was 127-lb. New York Central standard section laid on sound creosote-treated ties spaced about 1 ft. 8 in. center to center with canted tie plates having an outside shoulder only. The ballast was 2-in. crushed rock.

Strain gages placed in groups at 10-ft. intervals were used to measure the stresses in the rails on the outside of the rail head, underneath the rail at the center line, and on top of the outer and inner flanges. Slow-motion pictures were taken at each test section to determine the position of the crankpin for each stress recorded.

The results showed that up to 87 m. p. h., the maximum speed operated, the converted L-2 imposed no greater stress on the track than the J-1 and that the maximum stresses in both cases were well within permissible limits. This proved that such a 69-in. driver locomotive could be operated at the same maximum speeds as the one with 79-in. drivers and substantiating the correctness of the method of balancing used for the converted L-2, which had taken into account the complete theoretical analysis. In this work much valuable assistance was rendered by the Timken Roller Bearing Company.

The ranges of comparative stresses for the two loco-

Table VII—Summary of Maximum Stresses: Tangent Section

Locomotive	Speed range, m.p.h.	Rail	No. of stresses above 15,000 per sq. in.	Five highest maximum stresses, per sq. in.	
				Average	Range
Strain-Gage Location Underneath the Rail					
2995	54.4 to	Left (S)	64	21400	22100 to 20900
L-2d	87.2	Right (N)	17	18800	23300 to 17100
(conv)	(9 runs)				
5330	66.2 to	Left (S)	34	21200	22600 to 19500
J-1e	85.9	Right (N)	16	18800	20500 to 17800
	(5 runs)				
5435	72 to	Left (S)	21	24200	29100 to 20200
J-3a	83.2	Right (N)	11	19200	20800 to 18300
	(4 runs)				
Strain-Gage Location Outside Head of Rail					
2995	54.5 to	Left (S)	43	20500	23000 to 18500
L-2d	87.2	Right (N)	26	20200	23400 to 18600
(conv)	(9 runs)				
5330	66.2 to	Left (S)	33	19400	20500 to 18500
J-1e	85.9	Right (N)	20	22000	27700 to 19100
	(5 runs)				
5435	72 to	Left (S)	19	17700	18400 to 17400
J-3a	83.2	Right (N)	10	19500	22000 to 18400
	(4 runs)				

motives and for one of the J-3 class tested at the same time are given in Table VII.

#### New L-3 Combination

##### Passenger-and-Freight Locomotive

On the basis of the experience gained with the two converted L-2 engines and the study that had been given to the design, with the close cooperation of The American Locomotive Company, the Superheater Company, the Timken Roller Bearing Company, and others, 50 of the L-3 class were ordered and have lately been delivered, 25 of which are arranged for operation in either passenger or freight service, while the remaining 25 are strictly freight locomotives but having the same characteristics with respect to speed versus track structure. The combination engines are equipped with a cast-steel pilot and drop coupler, steam heat, air signal, engine-truck brake, and roller bearings on all wheels, including drivers. Boosters were omitted although arrangements were made for convenient application if subsequently found desirable.

The 4-8-2 wheel arrangement was retained as it was found that for this design the required weight distribution could be secured without the use of a four-wheel trailing truck and also because it was desired to supply the largest possible tender, particularly with reference to coal capacity, without extending the over-all length of engine and tender beyond the limits of the 100-ft. turntables now in use at principal main-line terminals.

The extra large coal capacity of 43 tons was provided to increase materially the length of runs and through intensive use to obtain high monthly mileage which would be equivalent to additional locomotives. A waterscoop of improved quick-acting design, which had recently been developed and tested, and which supplies approximately 20 per cent more water with a substantial reduction in the amount spilled, was applied.

The standard 69-in. driving wheels were retained as experience had proved this size best for high-speed main-line freight service in which the engines would be used the greater portion of the time. Provision was made, however, by increasing the driving wheel base and the over-all length, for the future application of 72-in. driving wheels, as a margin of protection for high-speed running.

For reasons beyond the scope of this paper, it was decided to use carbon steel instead of nickel steel for the boilers and, in order to conform to the desired limits of total weight and wheel loads, this necessitated using a working boiler pressure of 250 lb. per sq. in. instead of the 275 lb. per sq. in. originally planned. With this pressure and cylinders of 25½ in. diameter and 30 in. stroke,

a rated starting tractive force of 60,100 lb. was obtained, about equal to the 60,620 lb. of the L-2 class as desired.

The increase in driving-wheel base permitted the use of a combustion chamber 12 in. longer than on the L-2 for increased firebox volume and greater combustion efficiency. Greater gas area through an enlarged superheater was provided to increase the superheat temperature.

An improved front end, as developed by the Selkirk tests heretofore mentioned, was installed.

Particular attention was given to the proportioning of steam passages from dome to exhaust to provide free steam passage and reduce transmission losses, and the large-volume steam chest with the standard 14-in. valves was retained.

Reciprocating parts are of special lightweight design similar to those used on the two converted L-2 class, and all wheels were dynamically balanced in accordance with the theoretically correct principles established for those engines.

The following modifications were made with a resulting decrease in weight:

- Cor-Ten-steel main air reservoirs.
- Aluminum cab, running boards, cylinder and valve casings, dome and turret casings, and gage board.
- High-tensile-steel drop coupler.
- Lightweight magnesia block lagging.
- Tubes and flues to one gage tolerance.
- New design lightweight valve gear.

Other special features incorporated were complete speed-recorder and cutoff-selection equipment, coal pusher, Alemite grease equipment for rods and other

fully cognizant of the rapid strides being made by other forms of motive power, their possibilities, advantages, and growing importance to the railroads for certain classes of service.

This may be illustrated by stating that on the New York Central, 127 Diesel-electric locomotives are used in intensive daily service. As early as 1924, a 60-ton 300-hp. Diesel-electric locomotive was operated in switcher and puller service in New York City territory with favorable results, followed in 1928 by a road freight and in 1929 by a road passenger locomotive. The first straight electric was introduced in 1904, and there are now 168 of various types and capacities in use on the system. Within the last six years, limited operating experience has been obtained with a 5,000-hp. experimental turbo-electric locomotive and a 3,600-hp. Diesel-electric, both designed for high-speed main-line service, and a 5,400-hp. Diesel-electric freight locomotive.

Future development of the steam locomotive in some radically new form, such as the steam-turbine condensing or combustion type, as recently proposed, should show a substantial increase in thermal efficiency but, until the stage has been reached where such units of proved dependability in daily operation can be produced of moderate size, weight, and cost, it is the author's belief that basic lines of development should be continued by taking advantage of the possibilities for further betterment of the conventional reciprocating design without radical changes in the type of boiler or resorting to the mechanical complication of multiple expansion of steam. It should be possible now to produce a highly serviceable two-cylinder single-expansion locomotive of the 4-8-4 type at a weight per indicated horsepower closely approaching that represented by the 4-6-4 class J-3a described in this paper, capable of delivering 6,000 cylinder hp. when required.

Such a design should include the largest practicable superheater, with ample firebox volume and grate area, carefully proportioned steam passages from boiler to exhaust, and a working steam pressure probably up to 300 lb. per sq. in.

Roller bearings on all locomotive and tender axle journals and to a lesser degree in rods and motion work have resulted in increased serviceability because of freedom from heating failures. Their extended utilization should receive careful consideration.

For the future extension of steam-locomotive productive capacity, design study leading to a better proportioned and more efficient boiler is proposed. The development of a suitable drier arrangement to provide high-quality steam, taken directly from the boiler barrel, would permit elimination of the steam dome with corresponding possibilities within given weight or clearance limitations for increased diameter of barrel with improved tube and flue layouts and larger gas areas and superheater, additional firebox depth and volume, and more nearly level grates without restricting the highly important features of adequate ash-pan capacity and arrangement necessary for long locomotive runs.

Design studies and performance experiments are now in progress to improve the poppet-valve arrangement of steam distribution and these efforts may result in making available for practical use the better cylinder performance in relation to power output and efficiency inherent therein, without prohibitive increase in the size and weight of the boiler.

Other interesting experiments now in operation include locomotives having four simple cylinders and two separate sets of running gear or combined within a single rigid wheel base, with which improved wheel loadings and rail effects should be obtained, together with

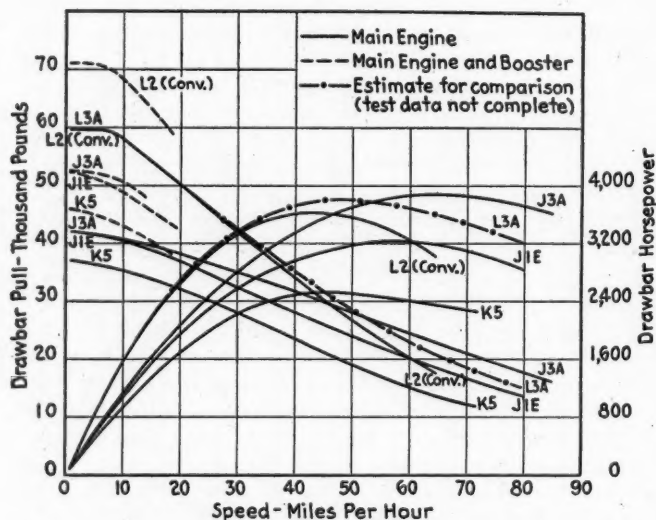


Fig. 2—Curves Showing Drawbar Pull and Horsepower Vs. Speed for Various Types of Locomotives

parts, roller bearings on all axles, and lateral-motion device on front and main drivers.

The estimated drawbar pull and horsepower versus speed for the L-3 are shown by the curves included in Fig. 2. Capacity and performance tests for the L-3 are now in progress and the characteristics shown are believed to be conservative.<sup>1</sup> The principal dimensions and the proportions are shown in Table VI. For convenient comparison, some of the characteristics of the L-2d converted class and L-2 freight engine, are also given.

While this paper is confined to the subject of the conventional steam passenger locomotive, the author is

<sup>1</sup> For a description of these locomotives see an article entitled "New York Central Buys All-Round Road Locomotives," *Railway Age*, December 7, 1940, page 856.



lower dynamic forces in machinery and running-gear parts, as well as other advantages.

Ability to extend the length of locomotive runs in either freight or passenger service without stops for fuel depends to a great extent upon the size of the tender. This, in turn, may be limited by possible restrictions on over-all length. One leading western railroad now has in service back of a considerable number of modern steam locomotives a new arrangement of tender running gear and underframe which possesses possibilities of materially increased tender capacity within given dimensional restrictions.

### Discussion

R. M. Ostermann, vice-president, The Superheater Company, commenting on Mr. Kiefer's compromise between thermal efficiency and practical operating advantages, thought that the locomotive designer would eventually be forced to adopt far-reaching modifications in design because of the pressure of competition to which the steam locomotive is now subjected.

Frank E. Russell, mechanical engineer, Southern Pacific, commented particularly on the importance of the design of steam and exhaust passages in effecting increases in the horsepower per unit of cylinder volume in the more recently designed locomotives. He also referred to tests which were made on the Southern Pacific in 1920 indicating the advisability of departing from saturated-steam practice on locomotives using superheated steam in the matter of cylinder proportions. He referred to the successful operation on the Southern Pacific of passenger locomotives having cylinders with 30- and 32-in. strokes in high-speed full-power operation. He cited a run of a 4-8-4 type passenger locomotive with 25½-in. by 32-in. cylinders, 80-in. drivers, and 300 lb. boiler pressure hauling a 924-ton passenger train at a sustained speed of 55 m.p.h. on a compensated one per cent grade. This, he said, requires a calculated drawbar horsepower on level track of 4,750 and the equivalent cylinder horsepower is estimated at 5,400.

Table VIII—Summary of Principal Weight and Power Characteristics for Locomotive Designs Discussed

Class	Type	Last built	Locomotive weight, lb.	Max. h.p. and speed (m.p.h.) at which attained,		Weight per hp., lb.	
				Cylinder	Drawbar	Cylinder	Drawbar
K-80	4-6-2	1912	252500	1700-39	1430-35	149	177
K-2	4-6-2	1910	273000	2000-45	1655-40	137	165
K-3a	4-6-2	1923	295500	2100-45	1720-40	141	172
K-3a	4-6-2	1925	278000	2140-45	1750-40	130	159
K-5	4-6-2	1926	302000	3200-54	2530-45	94	119
J-1a No. 5200	4-6-4	1927	343000	3900-67	3300-58	88	104
J-1E	4-6-4	1931	358600	3900-67	3240-58	92	111
J-3	4-6-4	1937	360000	4725-75	3880-65	76	93
Converted L-2	4-8-2	1930	385100	4200-50	3640-43	92	106
L-3	4-8-2	1940	388500	4400-55	3800-48	88	102

T. V. Buckwalter, vice-president, Timken Roller Bearing Company, considered the principal improvement in steam passenger locomotives to be the increase in capacity for work as measured in ton-miles per month. He cited the average mileage of fifty J3 class locomotives for the month of December, 1940, which was 11,689, ten of which actually made over 16,000 miles each during that month. He doubted whether the average passenger locomotive previous to 1925 averaged more than one third as much as the figures cited, hauling trains, approximately half as heavy, all power requirements considered. This, he said, would indicate that the modern Hudson type locomotive has six times the capacity for work of

the locomotive of only 15 years ago and indicates that the replacement of steam passenger locomotives by other forms of motive power is still a long distance in the future.

Referring to the conversion of the Class L2 No. 2998, Mr. Buckwalter said that the reciprocating weight was reduced from 2,143 lb. to 1,239 lb. and the overbalance in the plane of the rail on the left main driver was reduced from 441 to 171 lb., with the corresponding dynamic augment at diameter speed reduced from 21,200 lb. to 8,200 lb.

Mr. Buckwalter also called attention to the reduction in the size of the pedestal openings for the double row type of tapered roller bearings on the L2d and L3a locomotives, which correspond with the standard opening and pedestal clearances required for plain bearing driving boxes.

James Partington, manager, engineering department, American Locomotive Company, referred to the use of aluminum for running boards and casings and of aluminum for some of the cabs and USS Cor-Ten steel for others, by which he said 2,000 lb. weight per locomotive was saved. Twice this saving, he said, could be obtained if the boilers of the locomotives were of welded construction. He reviewed the experience with the all-welded boiler now in service on a Delaware & Hudson locomotive which was placed in freight service in the fall of 1937 for a five-year test and since which time periodical inspections have shown that its performance record is 100 per cent, and listed the advantages of the welded type locomotive boiler as no rivets, no overlaps, no obstructions inside or outside, no joint repairs or failures, lower upkeep expense, higher efficiency, lighter weight, easier handling, quicker washing, neater appearance, and the elimination of caustic embrittlement which has caused rivet failures and cracked sheets in the region of both circumferential and longitudinal seams of riveted boilers. "The latter in a number of cases," he said, "has made expensive repairs necessary."

"Welding has supplanted riveting for high-pressure stationary boilers and for nearly all pressure-vessel construction. There are several hundred locomotive type welded boilers in use for power purposes in the United States and these boilers are operating at pressures up to 350 lb. per sq. in."

As to the future of welded boilers for locomotives, Mr. Partington said: "This will depend on the attitude of the railroads and the decision of the I. C. C. The locomotive builders are ready to give full assistance and cooperation in this development."

J. E. Long, western sales manager, Franklin Railway Supply Company, said that a program of power development such as that described by the author is controlled by the efficiency and capacity of the boiler, the efficiency and capacity of the cylinders, and the efficiency of the machine. "While the boiler has been improved," he said, "about the only important steps taken to improve the cylinder performance are superheating and some small improvements in steam distribution but still using the sliding or piston valve." In discussing the improvement in power to be obtained from the Franklin system of steam distribution with O. C. poppet valves, Mr. Long said: "On various types of locomotives which have been studied in recent months, the following examples show the possible reduction in weight per horsepower:

Type	Locomotive weight, lb. per i.hp.	
	Piston valve	Poppet valve
4-6-2	100	89
4-6-4	90	75
4-8-4	104	85
2-10-4	103	86

"The practical proof in the improvement in power output is the fact that the Pennsylvania instructions are not to double-head locomotive No. 5399 (equipped with the Franklin system of steam distribution), but to assign it to important and fast trains where the consist exceeds the normal locomotive rating by two cars. This is roughly an increase of 20 per cent."

C. J. Surdy, assistant to general manager, Standard Stoker Company, said that there is much more to consider in a selection of motive power than the known advantages derived from more expensive power such as Diesel-electrics or turbo-electrics of the types proposed in recent years. Practical railroad men must also give full consideration to the economic forces which, in a considerable measure, determine whether or not coal must be used as a source of power."

Mr. Surdy said that with the wide experience gained with the conventional locomotive boiler, a starting point for the development of a turbo-electric locomotive is available. "A boiler of the New York Central Hudson type locomotive," said he, "can generate a maximum of 100,000 lb. of steam per hour. By the use of a water-tube firebox, it should be possible to generate steam at a pressure in the neighborhood of 700 lb. per sq. in. This capacity would exceed the steam requirements of two or even three 2,500-hp. turbines, so that a 7,500-hp. turbo-electric locomotive using coal as a primary source of fuel in a boiler and firebox somewhat along present conventional lines is within the realm of possibilities."

## Would Wipe Out Soo Line Equities

WASHINGTON, D. C.

**F**INANCE Examiner Ralph H. Jewell has recommended to the Interstate Commerce Commission a proposed plan of reorganization for the Minneapolis, St. Paul & Sault Ste. Marie which would wipe out the equities of the holders of general unsecured claims not entitled to priority and of the preferred and common stockholders and reduce the total capitalization from \$169,202,628 (with, additionally, \$28,459,266 of accrued and unpaid interest on fixed-interest bearing debt as of January 1, 1941) to about \$87,000,000. Under the proposed plan, which would become effective as of January 1, 1941, the annual fixed interest charges would be cut from \$6,631,322 to approximately \$53,415, all on equipment obligations which will be assumed undisturbed by the reorganized company.

### New Capitalization is Set Out

The new capitalization and annual charges under the proposed plan are set out as follows:

Issue	Amount	Annual Requirements
Equipment obligations .....	\$2,663,829	\$53,415—Fixed Int.
First-mortgage, series-A 4½ per cent income bonds .....	\$10,000,000	\$450,000—Int. conting. 250,000—Mandatory cap. fund
General-mortgage, series-A 4 per cent income bonds .....	20,129,076	805,163—Int. conting. 100,645—Sink. fund
Common stock (no-par), 719,319 shares, stated at \$75 a share....	53,948,925	
Total capitalization .....	86,741,830	1,659,223

<sup>1</sup> Of the total of \$10,000,000, principal amount, of first mortgage, series-A income bonds, \$1,948,369 are to be held in the treasury of the reorganized company and used to reimburse the company for reorganization expenses and for proper corporate purposes. Until these treasury bonds are issued the annual interest requirement will be \$87,677 less than the interest shown.

Under the plan, as recommended by Examiner Jewell, holders of such of the present first consolidated mortgage bonds which matured on July 1, 1938, as bear an interest guaranty by the Canadian Pacific would receive payment in cash by the Canadian Pacific of unpaid interest which accrued on January 1 and July 1, 1938. Holders of all first consolidated bonds would receive in cash about 3.3 per cent of their total claims, including accrued and unpaid interest to January 1, 1941 (not paid by the Canadian Pacific under its guaranty); about 10 per cent of their total claims in new first mortgage, series A, 4½ per cent income bonds; about 25 per cent in new general mortgage, four per cent, series A income bonds; and about 0.6 share of new no-par common stock for each \$100 of their claims.

Holders of the present second mortgage, four per cent, 50-year gold bonds, maturing January 1, 1949, all of which bear an interest guaranty by the Canadian Pacific, would get payment by the Canadian Pacific in cash of the guaranteed interest falling due on their bonds between January 1, 1938, and January 1, 1941. For the remainder of their total claims they would receive one share of new no-par common stock for each \$100 of their claims.

### Bondholders to Get New Stock

The proposed plan also provides that holders of the present first refunding mortgage, series A, six per cent bonds, maturing July 1, 1946, none of which bears the Canadian Pacific interest guaranty, would receive for each \$100 of their total claims, including accrued and unpaid interest as of January 1, 1941, 0.5 share of new no-par common stock.

Holders of the present first refunding mortgage, series B, 5½ per cent bonds, maturing July 1, 1978, all of which bear the Canadian Pacific interest guaranty, would get cash payment from the Canadian Pacific of their guaranteed interest which matured between January 1, 1938, and January 1, 1941. For the remainder of their total claims as of January 1, 1941, they would receive for each \$100 of claim, 0.5 share of new no-par common stock.

Deposit agreements are provided in the proposed plan for holders of present second mortgage and first refunding mortgage bonds, which bear a Canadian Pacific interest guaranty, for the purpose of reserving to such holders their claims against the Canadian Pacific for the guaranteed interest to the date of maturity of their bonds not paid by that company.

For its payments as guarantor of the specified interest coupons on the first consolidated mortgage, second mortgage, and first refunding mortgage bonds, the Canadian Pacific would receive for each \$100 of interest so paid on the guaranteed first consolidated bonds, one share of new no-par common stock; for each \$100 of interest so paid on the second mortgage bonds, 0.9 share of common stock; and for each \$100 of interest so paid on the first refunding mortgage bonds, 0.45 share of common stock.

### Would Place Stock in Voting Trust

It is further provided that all of the new common stock issued in the reorganization would be placed in a voting trust, two of the voting trustees to be designated by representatives of the holders of the debtor's bonds (other than the Canadian Pacific) and three by the Canadian Pacific. All of the new stock except that receivable by the Canadian Pacific as a creditor in the reorganization, would be subject to an option by that road, continuing



to December 31, 1950, to purchase 25 per cent of the total of such shares at a price of \$2 a share.

Examiner Jewell finds that the debtor's secured notes to the Railroad Credit Corporation, now held by the Canadian Pacific, are fully secured and he would pay them in cash. The collateral securing the notes would be surrendered to the reorganization managers for pledge under the mortgages of the reorganized company.

The holders of the debtor's other now outstanding secured notes would receive the collateral securing their obligations, any remaining claims against the debtor being treated as unsecured general claims not entitled to priority, for which no provision is made in the proposed plan.

Holders of the leased line stock certificates would have returned to them the Wisconsin Central stock in accordance with the terms of the preferred stock exchange agreement under which the Wisconsin Central stock was deposited and which has been or will be disaffirmed by the debtor's trustees. Any remaining claims by the

certificate holders against the debtor would be treated as general unsecured claims, not entitled to preference, for which no provision is made in the plan.

The proposed plan also provides that the present traffic agreement with the Canadian Pacific will be continued in force for an indefinite period, subject to certain conditions, with the added provision that it could be cancelled by either party upon one year's notice after December 31, 1950.

The proposed plan would be carried out by three reorganization managers, one to be designated by each of the two institutional groups and one by the Canadian Pacific. If any of the parties should fail to name its representative, the vacancy would be filled by the court.

A notice, attached to the plan and signed by Secretary Bartel, states that exceptions to the proposed plan must be filed in Washington and served so as to reach other counsel of record on October 1; replies to exceptions may be filed and served by October 11. The case is assigned for oral argument before Division 4 on October 28.

## Communication . . .

### Canadians Propose Alaskan Highway

CHICAGO, ILLINOIS

TO THE EDITOR:

Referring to the article by the undersigned in *Railway Age*, May 17, entitled "Alaska's Transportation and Communications Facilities and Their Relation to Our Pacific Defenses."

The attention of your readers is now directed to Analyses numbers 5, 6, and 7 (page 848), which reminded the Washington State-British Columbia political and civil advocates of the proposed automotive highway to Alaska that "The shortest distance between two points is a straight line." I amplified this geometrical fact with the warning that in event the highway were constructed (as an alleged military defense measure), the major part of the automotive traffic would move from our mid-West and Eastern regions through Chicago, Saint Paul-Minneapolis, Winnipeg, Edmonton, and Prince George; rather than over the Rocky and Bitter Root Mountain divides, and through Spokane, Okonagan, and Seattle.

It is now evident that Prime Minister W. L. Mackenzie King also knows that "The shortest distance between two points is a straight line," viz., (as it appeared in the Chicago Tribune Press Service, Sunday, July 20, 1941):

"CANADIANS ASK ALASKA HIGHWAY LINK TO CHICAGO."  
"OTTAWA DELEGATION TO URGE PRAIRIE ROUTE."  
"BY J. J. CONKLIN."

"Winnipeg, Man., July 19—A delegation representing the Prairies Alaska-Canada Highway Association, headed by H. C. Grant, tourist bureau head in British Columbia, and Ian McKenzie, association president, are in Ottawa to confer with government officials regarding a route across the Canadian prairies for the proposed highway to Fairbanks, Alaska.

"The route they favor would join the main highway at Prince George, B. C. It is pointed out that this route would be more feasible, less costly and more practical than one running entirely through British Columbia, starting at Seattle, Wash. It would connect with Chicago via Duluth, from Winnipeg or Regina, using the Trans-Canada Highway for 500 miles and the excellent highway north from the United States border to Edmonton, Alta.

"FAST FOR TROOP MOVEMENT"

"If the government of the United States desired to send troops or armaments from Chicago or middle west points to Alaska, this route would be a fast one, utilizing Canada's fine prairie highway to Prince George, the delegation asserted. From Prince George to Dawson City, Yukon Territory, the highway would be all new construction. The Alaskan border is 40 miles from Dawson and from that border the United States would have to build a road to Fairbanks.

"The Canada-Alaska Commission has recommended two routes, both through British Columbia from the State of Washington, but Prime Minister Mackenzie King of Canada, in a recent speech in Winnipeg,

said he did not see why there should not be an alternative route across the prairies connecting with Chicago.

"AGREE UPON NORTHERN ROUTE"

"The commission has agreed that the only feasible northern route is from Prince George to Fairbanks, but from Prince George south there are several alternative routes, one of them the prairie route to Chicago.

"The highway must have a large military base, or terminus, like Chicago, Mr. Mackenzie King points out, to carry out the object of the highway's construction—the protection of Alaska."

Mr. Mackenzie King states the object of the proposed highway is "the protection of Alaska." It is appropriate to say, however, that the actual objective motivating many, if not most, of the highway's proponents is a current of traffic that would traverse the 2,000-mile route; one thousand miles of which, north of Prince George, B. C., would be constructed with United States federal money. The far-reaching primitive timber stands and potential valley farm lands of Northeastern British Columbia would be developed by the highway, and the communities in the now developed prairie regions would capture the Alaska summer tourist, freight, and express business that has been developed during the past 40 years by the American North Pacific transcontinental railroads and Alaska steamship lines—also the railroad and steamship services of the Canadian Pacific, the Canadian National and the White Pass & Yukon rail and river system. It is an Alaskan traffic in the development of which the Canadian prairie provinces never had any part whatever.

The political and civic personages of Washington state and Southern British Columbia would demonstrate intelligence by now reversing their position and devoting their fine talents toward perfecting measures to safeguard the traffic patronage that has passed to and from Alaska since the golden days of Dawson, Fairbanks and Nome.

It is here re-emphasized that what we truly need for the "protection of Alaska" is the ultimate of perfection of our naval and military aerial power in Alaska in order effectively to hold the Alaska and British Columbia coast line from Bering Strait south to Puget Sound.

If we adopt that policy and adhere to it there will not be any justification for the United States to spend \$50,000,000 and three years of constructive effort in the building of an automotive highway in British North America to compete with American transport services which have faithfully and successfully operated through all seasons of the year since 1898. The highway, if constructed, would be freely open only during a six-month period (May to October), and after it had profited from the major part of the traffic, the traffic crumbs of the winter season would be gratuitously thrown to the rail and steamship services.

EDWIN SWERGAL

# NEWS

## Plenty of Gas Via Tank Cars

Shortage, if any, can be quickly ended if oil shippers will use rails, says Pelley

J. J. Pelley, president of the Association of American Railroads, on September 3 told a special Senate committee investigating the alleged gasoline shortage in the eastern seaboard states that there now exists a surplus of some 20,000 tank cars which could be utilized by the oil companies to carry in excess of 200,000 barrels of oil daily from the producing areas. In other words, said Mr. Pelley, if these cars are utilized, the estimated shortage of 174,000 barrels daily would be more than overcome in the short space of two weeks needed to get the cars rolling.

This statement was a direct refutation of one made by the initial witness at the hearing before the special committee headed by Senator Maloney, Democrat of Connecticut, Ralph K. Davies, deputy petroleum coordinator, who had testified that he had made inquiries as to where these surplus cars were and had been unsuccessful in ascertaining their whereabouts from the railroads. In other words, Mr. Davies told the committee that the estimate of 20,000 idle cars was purely a theoretical one worked out by mathematics.

During Mr. Pelley's testimony before the committee, he revealed that for the first time during the more than three months that it has been known that there might be a gasoline shortage, Mr. Davies' office and officials of the oil industry had contacted him to ask for a conference on the question of petroleum rates. This meeting, he said, will be held on September 4 in an effort to work out reduced rates on large shipments of oil by tank car from the mid-western producing fields to the large refineries in the Philadelphia and New York areas. It was his belief that something would come out of this conference which would permit the oil companies to fully utilize the surplus tank cars. It has been the contention of the oil companies that the present rail rates are too high and that they have refrained from using tank cars because the price on gasoline moved that way would have to be much higher than that moved by pipe line and tanker.

Mr. Pelley also told the committee that the railroads' attitude on the matter of reduced rates on oil could be shown by the fact that within recent weeks they have, at the request of the oil companies, put in 41 reduced rates for the movement of

crude oil and have requests pending for 40 other rates which will get prompt consideration.

He was opposed to the construction of the large pipe line which the oil industry, with the blessings of Petroleum Coordinator Ickes, hopes to build from the Texas fields to the Philadelphia and New York refining areas. It was his position that the railroads needed the steel that would go into the pipe line for cars, and he went on to tell the committee that the output on carrier orders would be 20,000 new cars short by October due to their inability to get the necessary steel. Also, the carriers, he continued, will need an additional 150,000 new cars next year to carry an estimated 51,000,000 cars of traffic for 1942.

Mr. Pelley also laid much of the blame for the present gasoline shortage on the failure of the oil companies to use the existing tank car facilities. He emphasized that the shortage need never have existed if the oil companies had heeded the warning of the railroads in January of this year and had gone ahead and worked out plans to utilize the idle tank cars.

In this connection it should be noted that all through the hearing Chairman Maloney has contended that the word shortage should be enclosed in quotation marks, and has repeatedly declared that if there be any shortage, it exists only because of the efforts of the Coordinator to create it. Mr. Davies had also suggested that those who are spreading rumors of the unreality of the oil shortage might be motivated by the hope of sabotaging the defense program. In answer to this, Senator Maloney declared that it appeared to him the oil companies were "extremely careless" in their failure to construct the necessary loading and unloading facilities for tank cars after they knew that there would be a shortage of transportation facilities.

Besides denying that the surplus tank cars existed, Mr. Davies also tried to impress upon the committee the fact that the eastern seaboard and also the west coast were faced with a definite oil shortage due to the lack of transportation caused primarily by the transfer of tankers to defense needs and to such belligerents as England. Although he professed to be more than glad to testify, it was apparent at the start of the hearing and throughout his entire day of grilling by the committee that he was on the defensive and seemed to resent the questioning of the Administration's handling of the oil program.

To sum up his position, he told the committee that at the present time there exists a shortage of some 174,000 barrels daily in the eastern seaboard states because

(Continued on page 391)

## Yankee Basis of Truck Rates OK

Examiner sustains classification based on truck costs and weight density of goods

New England motor carriers would be permitted to continue operating under their "cost plus" rate structure and density-weighted classification which are designed to reflect the inherent advantages of motor transportation if the Interstate Commerce Commission adopts a proposed report wherein Examiner Cromwell Warner has recommended general approval of perfecting proposals submitted by the New England Motor Rate Bureau and rejection of protestant contentions that the New England "experiment" has been a failure and that the National Motor Freight Classification based on rail rates should be prescribed. The examiner would not have the commission accept the New England Bureau proposals in toto, but he would approve the plan in general, continuing the New England minimum rate order in effect and modifying it accordingly.

The proposed report, which comes after further hearing in Ex Parte MC-22, occupies 129 mimeographed sheets, and its appendices run to an additional 337 pages. In the original decision, reviewed in the *Railway Age* of August 20, 1938, page 287, the commission supported the then-existing rate structure with a minimum rate order, but expressed dissatisfaction with various aspects of the set-up. Accordingly, the case was reopened for further hearing, out of which came the perfecting proposals which are dealt with in Examiner Warner's report.

The principal protestant is the Eastern Motor Freight Conference which the examiner identified as an organization of "some 200 odd motor carriers, the majority of whom are domiciled in the states of Connecticut and Vermont and in the western portion of the state of Massachusetts, some also being domiciled in eastern Massachusetts, Rhode Island, eastern New York and northern New Jersey." However, the New England Bureau insisted that it is the more representative organization, and the examiner appears to have agreed when he wrote: "The commission should find that the record does not support the contention that the experiment has been a failure, particularly in view of the fact that the continuance of the present type of class rate structure is so ardently supported by the New England

(Continued on page 389)



## A Working R. R. Man Gets \$1800+

I. C. C. figures contrasted with those of Pension Board, being used for propaganda

What kind of an employee count and what kind of a wage average is most significant "depends on the nature of the problem under consideration," and a compensation average based on the Interstate Commerce Commission's mid-month count "happens to give the correct result if one is interested in what a full-time worker can earn," said a statement on railway wages made public last week by the commission's Bureau of Statistics. The statement, which was issued as information and "has not been formally considered or adopted by the Interstate Commerce Commission," comes at a time when organized railroad labor is making much of the recently-issued Railroad Retirement Board compilation showing that railroad employees, including 102,008 who had work in only one month and 129,927 who earned less than \$50 during the year, had an average 1939 wage of \$1,324.

"The count and analysis made by the Retirement Board," the Bureau of Statistics statement said, "throws light on the extent of part time employment, but without distinction as to whether the irregular work is due to seasonal irregularity, cyclical fluctuations, death, sickness, or transfer to some other industry." As noted in the *Railway Age* of June 28, page 1200, the Retirement Board's compilation also shows that employees who might be regarded as really attached to the industry, i. e., the 862,153 who had some work in each of 1939's 12 months, earned for that year an average wage of \$1,844. This compares with an average of \$1,839, based on the I. C. C. mid-month count but excluding executives, officials and staff assistants. The Retirement Board figures exclude pay in excess of \$300 per month.

The Bureau of Statistics' statement is Statement No. 4126, entitled "Railway Wages, 1929-1940." It sets forth a series of tables which are designed "to afford a review of the changes in the number of railway employees and their salaries and wages from 1929-1940." Also, there is the discussion of the extent of agreement or disagreement between I. C. C. figures and those of the Retirement Board.

Since 1933, the reports to the I. C. C. have shown the total number of employees receiving pay during a month as well as the number employed at the middle of the month. The commission's annual totals are the averages in each case of the twelve monthly counts. In comparing the Retirement Board figures with those of the commission, the Bureau pointed out that the proper comparison (so far as one can be made) is the one made above between the Retirement Board's \$1,844 for those who had some work in each of 1939's 12 months and the I. C. C.'s \$1,839, based on the mid-month count. Also, it suggests that there might be a comparison between the Retirement Board's \$1,324 average for all who received any 1939 pay with the

I. C. C.'s \$1,663, based on the average of the monthly counts of all employees receiving pay.

The lack of close correspondence between the \$1,324 and the \$1,663, the Bureau suggests, "is doubtless explained by the fact that the count of total persons receiving pay in I. C. C. reports is on a monthly basis with an average of 12 monthly counts, and that of the Retirement Board is on an annual basis." To show how this can account for the difference the Bureau goes on to tabulate an assumed case. The example supposes the actual employment in a shop to be full-time jobs for four employees, and part-time work during seven months for from two to four other employees. In order to fill the part-time jobs, the shop employed 15 different individuals during the year.

"According to the monthly statistics," the Bureau said, "the 12 monthly counts would show an average of five employees at middle of month and an average of six as the number receiving pay, while according to an annual survey of individuals, such as the Retirement Board makes, the total number of different persons employed would be 15.

"Let it be further assumed that every man in this shop who worked a full month received \$80 a month and those who worked fractions of months received \$20 a week. Then the total compensation for a year for a full time worker would be \$960 and the aggregate payment would be \$4,800. The average annual compensation according to the mid-month count would be \$960; according to the number receiving pay, \$800; and according to the annual survey of total persons employed, \$320. It will be noted that the mid-month count happens to give the correct result if one is interested in what a full time worker can earn. This is because the effect of the casual employees who happened to be working at middle of month and therefore counted neutralizes the influence of the casuals working at other times in the month and not counted. The \$320 average is useful as pointing to the relatively large amount of part time work in this shop."

One of the tables in the Bureau's statement shows for the years 1929 to 1940 the average compensation per hour and per year, the latter on the basis of the mid-month count. The average per hour rose from 65.1 cents in 1929 to 73.3 cents in 1940, an increase of 12.6 per cent; while the average annual wage rose 9.6 per cent, from \$1,704 to \$1,867. The average annual wage for the total receiving pay is not available for years prior to 1933; in that year it was \$1,249, and in 1940 it was \$1,696.

### McCarty Elected Head of Kentucky State Railroad Commission

Frank L. McCarty, Lexington, Ky., a member of the State Railroad Commission of Kentucky has been elected chairman to succeed Robert E. Webb, who recently resigned to accept President Roosevelt's nomination as a member of the Transportation Study Board. Jack E. Fisher, an attorney at Paducah, Ky., has been sworn in as a member of the commission to fill the vacancy created.

## 7 Months Net Income \$244 Million

Net railway operating income was \$539,853,203 a 4.13 per cent return

Class I railroads in the first seven months of this year had a net income, after interest and rentals, of \$244,376,852 as compared with \$3,441,371 in the corresponding period last year, according to the Bureau of Railway Economics of the Association of American Railroads. The seven-months net railway operating income, before interest and rentals, was \$539,853,203, a 4.13 per cent return, as compared with \$303,248,276 or 2.34 per cent in 1940, and \$450,935,427 or 3.48 per cent in 1930.

Thus for the first time are the figures on this monthly statement carried beyond the net railway operating income item to show also the net income after charges. It was explained at the A. A. R. that it is hoped by the change to eliminate confusion which has arisen when net railway operating income has been erroneously called "profit." As indicated above, the net income comparisons will be only with the previous year, because comparable data for 1930 are not available; current net railway operating income will continue to be compared with that of 1930 as well as the previous year.

The July net income was \$66,427,128 as compared with \$16,248,415 in July, 1940. Net railway operating income for that month was \$106,314,792, a 4.44 per cent return, as compared with \$57,725,166 or 2.43 per cent in the same month last year, and \$81,470,731 or 3.55 per cent in July, 1930.

Total operating revenues in the seven months were \$2,909,870,122, compared with \$2,362,600,538 in the same period in 1940, and \$3,111,900,121 in the seven months of 1930, an increase of 23.2 per cent in 1941 above 1940, but 6.5 per cent below 1930. Operating expenses amounted to \$1,988,383,842, compared with \$1,759,915,321 in the corresponding period in 1940, and \$2,378,147,109 in the same period in 1930—13 per cent above the former but 16.4 per cent below the like period in 1930.

Class I roads in the seven months paid \$304,822,112 in taxes, compared with \$223,747,540 in the same period in 1940, and \$208,450,360 in the same period in 1930. For July alone, the tax bill amounted to \$57,262,277, an increase of \$22,052,378 or 62.6 per cent above July 1940. Thirty-two Class I roads failed to earn interest and rentals in the seven months, of which eight were in the Eastern district, three in the Southern district, and 21 in the Western district.

Gross for July total \$485,446,306 compared with \$366,220,237 in July, 1940, and \$451,786,925 in July, 1930. Operating expenses totaled \$310,034,946 compared with \$262,064,921 in the same month in 1940, and \$327,955,974 in July 1930.

Class I roads in the Eastern district in the seven months had a net income, after interest and rentals, of \$141,002,128, compared with \$56,627,147 in the same period last year. The seven-months net railway

operating income of those same roads was \$272,975,202, or 4.06 per cent, compared with \$187,815,759 or 2.83 per cent in the same period in 1940, and \$254,169,877 or 3.99 per cent in 1930.

Gross revenues in the Eastern district for the seven months totaled \$1,455,781,374, an

under 1930; operating expenses totaled \$746,631,063, an increase of 11.7 per cent above 1940, but a decrease of 16.2 per cent under 1930.

In the Western district for July the net income was \$29,727,049, compared with \$5,161,897 in July, 1940. Net railway operat-

by W. H. Harrison. Douglas L. MacKeachie succeeds Mr. Nelson as head of the Purchases Division.

The new set-up was worked out for the President by Justice Samuel I. Rosenman of New York. The White House announcement said that the seven-man board, subject to the general policies enunciated by the President, "will fix the amount of materials to be allocated to military needs, defense-aid needs, economic warfare needs, and total civilian needs."

"In the general field of civilian needs," the statement went on, "this group will make policies and regulations for the allocation of the available supply between the different competing civilian industries and users. To illustrate, if the commodity involved is steel, this board will determine upon policies and regulations under which steel will be allocated, first for materials required by the Army and Navy of the United States, and then for the defense aid needs, economic warfare needs and civilian needs. When the total amount determined for civilian use is arrived at, the board will determine the policies and make regulations for the amount to be allocated to automobiles, railroad cars, refrigerators, building, typewriters, etc. The actual administration of these policies by way of issuance of priorities certificates for the various purposes will be carried on through the appropriate divisions of OPM. It is, of course, not contemplated that this board actually will pass on specific priority applications which are filed by the thousands every week. That will continue to be done in the Priorities Division under Donald Nelson. Only broad policies and general regulations for priorities and allocations will be determined by the board; and pursuant to these policies the actual day-by-day administration of specific priorities will be carried out by the Priorities Division."

The function of OPM's new Civilian Allocations Division will be "to initiate plans and programs for civilian allocation, which will be submitted through the Office of Production Management to the new board of seven for final approval or amendment."

### Club Meeting

The American Society of Mechanical Engineers will hold a National Defense meeting at the Hotel Chase, St. Louis, Mo., on September 9. F. A. Stevenson, senior vice-president, in charge of operations, of the American Car & Foundry Company, will present an illustrated talk on the subject, "Building Combat Tanks for the Army of the United States."

### "Grand Circle" Fares Will Be Continued

"Grand circle" railroad fares which were to have expired on October 31 will be continued for an indefinite time, John J. Pelley, president of the Association of American Railroads, has announced. First established experimentally in the spring of 1939, they enable travelers to go by rail from their homes to both coasts and return at considerably less than standard rates.

"The railroads have decided to keep the greatly reduced fares in effect until further notice," Mr. Pelley said, "because grand

### CLASS I RAILROADS—UNITED STATES

	Month of July		
	1941	1940	1930
Total operating revenues .....	\$485,446,306	\$366,220,237	\$451,786,925
Total operating expenses .....	310,034,946	262,064,921	327,955,974
Operating ratio—per cent .....	63.87	71.56	72.59
Taxes .....	57,262,277	35,209,899	30,949,817
Net railway operating income .....	106,314,792	57,225,166	81,470,731
(Earnings before charges)			
Rate of Return on property investment .....	4.44	2.43	3.55
Net income, after charges .....	66,427,128	16,248,415	*.....
Seven Months Ended July 31			
Total operating revenues .....	\$2,909,870,122	\$2,362,600,538	\$3,111,900,121
Total operating expenses .....	1,988,383,842	1,759,915,321	2,378,147,109
Operating ratio—per cent .....	68.33	74.49	76.42
Taxes .....	304,822,112	223,747,540	208,450,360
Net railway operating income .....	539,853,203	303,248,276	450,935,427
(Earnings before charges)			
Rate of Return on property investment .....	4.13	2.34	3.48
Net income, after charges .....	244,376,852	3,441,371	*.....

\* Net Income not reported monthly prior to 1932.

increase of 21.6 per cent compared with the same period in 1940, but a decrease of seven per cent under 1930. Operating expenses totaled \$981,673,404, an increase of 14.7 per cent above 1940, but a decrease of 16.5 per cent under 1930.

The Eastern district net income for July was \$28,697,361, compared with \$11,493,957 in July, 1940; net railway operating income amounted to \$47,328,303 compared with \$30,117,202 in July, 1940, and \$38,379,153 in the same month of 1930.

Class I roads in the Southern district in the seven months had a net income of \$42,042,227, compared with a deficit of \$1,348,440 in the same period last year. Those same roads had a seven-months net railway operating income of \$79,105,378, or 4.52 per cent, compared with \$37,469,384 or 2.14 per cent in the same period of 1940, and \$48,370,223 or 2.61 per cent compared with 1930. The seven months gross in the Southern district totaled \$386,527,702, an increase of 25.6 per cent compared with the same period in 1940, but a decrease of 1.2 per cent compared with the same seven months in 1930. Operating expenses totaled \$260,079,375, an increase of 10.5 per cent above 1940, but a decrease of 16.3 per cent under 1930.

The July net income of the Southern district roads was \$8,002,718 compared with a deficit of \$407,439 in July, 1940. Net railway operating income amounted to \$11,754,515 compared with \$3,823,763 in July, 1940, and \$5,429,199 in the same month of 1930.

Class I roads in the Western district in the seven months had a net income of \$61,332,497, compared with a deficit of \$51,837,336 in the same period last year. Those same roads in the seven months had a net railway operating income of \$187,772,623, which was at the annual rate of return of 4.09 per cent on property investment compared with \$77,963,133 or 1.71 per cent in the same period in 1940, and \$148,395,327 or 3.12 per cent in 1930. Gross in the Western district for the seven months totaled \$1,067,561,046, an increase of 24.4 per cent compared with the same period in 1940, but a decrease of 7.6 per cent

ing income in July amounted to \$47,240,974 compared with \$23,784,201 in July, 1940, and \$37,662,379 in the same month of 1930.

### Priority Control Shaken Up Again

President Roosevelt on August 28 created a seven-member Supply Priorities and Allocations Board, designed to assure "unity of policy and coordinated consideration of all relevant factors involved in the supply and allocation of materials and commodities among the various phases of the defense program and competing civilian demands." The new board—SPAB—is headed by Vice-President Wallace, the other six members being Secretary of War Stimson, Secretary of the Navy Knox, Director General Knudsen and Associate Director General Hillman of the Office of Production Management, Price Administrator Henderson, and Harry L. Hopkins, special assistant to the President supervising the lend-lease program.

Donald M. Nelson, who has been head of OPM's Purchases Division, becomes SPAB's executive director; and he will also serve as director of OPM's Priorities Division, succeeding E. R. Stettinius, Jr., who has been appointed lend-lease administrator. Among other things the new set-up is expected to eliminate difficulties which have arisen as a result of the overlapping jurisdictions of OPM and the Office of Price Administration and Civilian Supply. The latter now becomes the Office of Price Administration; its civilian supply activities are transferred to OPM, where Mr. Henderson will head a new Civilian Allocations Division while continuing also as administrator of OPA. Another change is the transfer of John D. Biggers from the directorship of OPM's Production Division to London, where he will have the rank of minister and work with W. Averell Harriman "in their task of facilitating and expediting material aid to the British Empire." The OPM Production Division which Mr. Biggers headed will be split into two divisions—a Materials Division headed by William L. Batt and a Production Division headed



circle tours have met with great success and have made it possible for many people to go long distances who might not otherwise have been able to afford it. Since the inauguration of this plan, thousands of travelers and vacationists have availed themselves of the opportunity to see America at surprisingly little expense."

Under the plan, the A. A. R. president pointed out, a circle tour coach ticket sells for only \$90, and a first-class ticket for \$135, plus special Pullman rates of \$45 for a lower berth and \$34.50 for an upper. Half fares are allowed children between 5 and 12 years of age who are accompanied by parents or guardians.

### August Ore Movement on Great Lakes

Iron ore movement on the Great Lakes during August reached 11,429,570 long tons, exceeding by 39,000 tons the July record and establishing an all-time monthly mark, according to Ralph Budd, defense transportation commissioner. Total movement of iron ore to September has been 51,418,000 long tons, an increase of 13,182,000 long tons or 34.7 per cent over the movement during the corresponding period of 1940.

### Representation of Employees

On the basis of a recent election the National Mediation Board has certified that the Railroad Marine Workers' Association has been duly designated to represent captains, mates, deckhands, floatmen, bridge-motormen and bridgemen, and engineers and firemen employed by the Long Island. In another recent election on the Lehigh & New England, the maintenance of way employees chose the Brotherhood of Maintenance of Way Employees.

### Railway Statistical Terms

The Interstate Commerce Commission's Bureau of Statistics has issued a compilation of definitions of words and phrases frequently used in discussions of railway statistics. The compilation is Statement No. 4119 and the defined terms arranged

alphabetically run from "Absorption of Charges on Freight" to "Yard Switching Tracks," the definitions covering 56 mimeographed sheets. A similar compilation was issued in 1932, but the present one is described as more comprehensive one. A tentative draft was considered by the Committee on Statistics of the Accounting Division, Association of American Railroads, "and most of the changes suggested have been adopted."

### Northern Pacific Ordered to Yield Land

A decree ordering the Northern Pacific to relinquish rights to a belt of land extending from Wisconsin to the Pacific coast was signed by Federal Judge Lewis B. Schwelmbach at Spokane, Wash., on August 28. Under the decree, described as a "settlement and a compromise," the Northern Pacific will give up claims to 2,900,000 acres of land which are part of two land grants made to the railway in 1864 and 1870. The company also agreed to reconvey to the United States approximately 363,000 acres of land valued at \$1,200,000. In addition, the railway must pay the government \$300,000 for 65,000 acres of land for which the "Northern Pacific had erroneously received patents."

### Budd Looking for Space Suitable for Warehousing

A survey of vacant buildings suitable for warehouses is being undertaken by the Transportation Division, Office for Emergency Management, in cooperation with the American Warehousemen's Association. The Association is forming a nation-wide committee of volunteer workers to assist the staff of Harry D. Crooks, warehousing consultant, to Transportation Commissioner Ralph Budd.

These men have been sent information cards which when filled out and returned will be the nucleus of a file of these vacant buildings in about 200 cities of over 25,000 population. The balance of the cities in this category, about 200 more, will be

covered as soon as additional committee members are appointed. The surveys previously announced of cold storage (public and private) and merchandise (public) warehouse facilities, and current occupancy of them, are nearing completion.

### I. C. C. Gives Houston Relief in Steel Rate Complaint

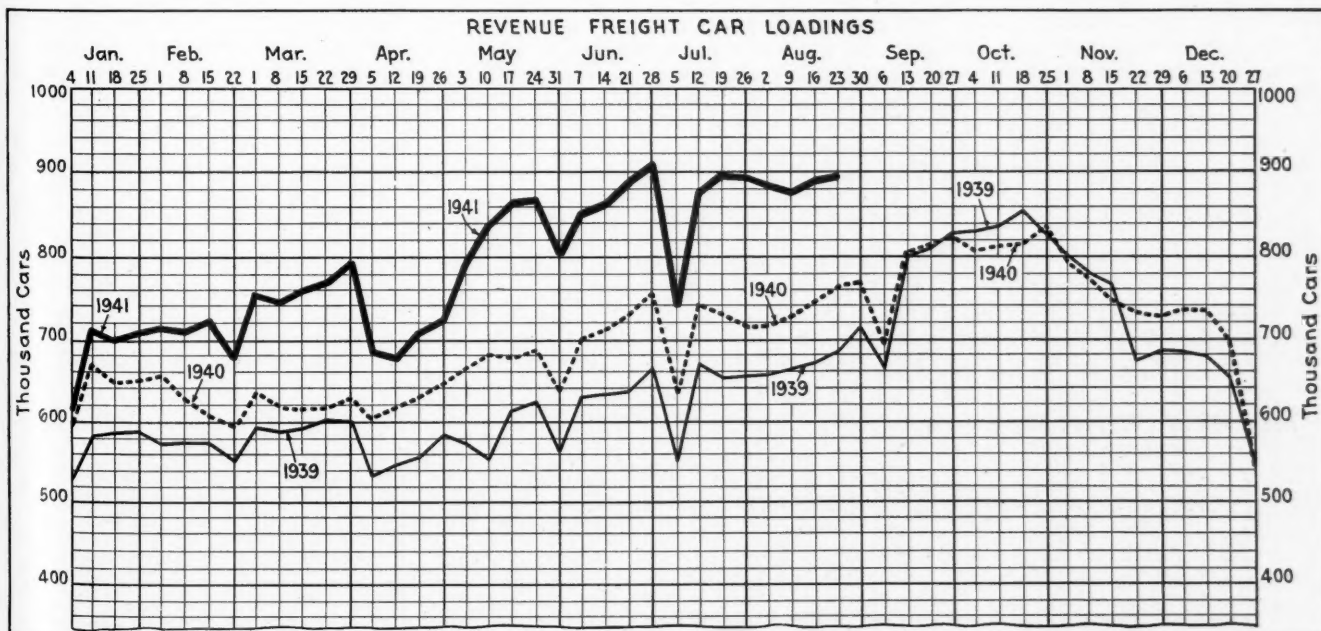
Passing upon a complaint of the Houston Chamber of Commerce, the Interstate Commerce Commission in a report by Commissioner Mahaffie has found that tariff rules covering iron and steel shipments fabricated in transit, particularly the substitution provisions thereof, result in unjust discrimination against Gulf-port territory and undue preference of interior territory.

The proceeding is docketed as No. 28381, and the findings, as summarized in the headnotes are (1) Charging more for empty than loaded space in connection with shipments of iron and steel, in carloads, from various producing points to Gulf-port and other destinations, found unreasonable. (2) Transit and substitution provisions permitting payment of refunds resulting in lower charges to interior fabricators on interstate carload shipments of iron and steel from various producing points to Gulf-port and other destinations, fabricated in transit, than exacted from fabricators at Gulf-port destinations for transportation of similar shipments from and to the same points, fabricated or not fabricated in transit, found unduly prejudicial and preferential. (3) Assailed routes, rates, transit arrangements, rules, and charges not shown to be otherwise unlawful.

The commission did not enter an order, but stated that if the tariffs were not revised within 90 days, the complainants could bring the matter to its attention again. Commissioner Johnson wrote a brief separate expression, concurring in part.

### Freight Car Loading

Carloading reports were so delayed by the Labor Day holiday that the Association of American Railroads had not an-



nounced the total for the week ended August 30 when this issue went to press.

As reported in last week's issue, loadings of revenue freight for the week ended August 23 totaled 899,750 cars, and the summary for that week, compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading			
For Week Ended Saturday, August 23			
Districts	1941	1940	1939
Eastern .....	181,618	151,319	137,944
Allegheny .....	198,096	161,683	132,028
Pocahontas .....	59,091	51,942	49,438
Southern .....	120,224	101,177	95,558
Northwestern ..	152,151	138,048	115,884
Central Western	129,310	109,040	106,149
Southwestern ..	59,260	47,899	46,905
<b>Total Western Districts .....</b>	<b>340,721</b>	<b>294,987</b>	<b>268,938</b>
<b>Total All Roads</b>	<b>899,750</b>	<b>761,108</b>	<b>683,906</b>
Commodities			
Grain and grain products .....	43,625	44,310	43,789
Live stock .....	12,013	13,511	13,061
Coal .....	169,653	134,892	119,557
Coke .....	12,979	10,634	6,968
Forest products	50,445	38,038	31,954
Ore .....	77,019	69,986	49,743
Merchandise l.c.l.	157,102	151,190	154,172
Miscellaneous ..	376,914	298,547	264,662
August 23 .....	899,750	761,108	683,906
August 16 .....	890,374	743,050	669,793
August 9 .....	878,549	727,073	661,023
August 2 .....	883,065	717,927	656,553
July 26 .....	897,399	718,038	655,531
Cumulative Total, 34 Weeks ..	26,811,593	22,686,143	20,467,311

**In Canada.**—Carloadings for the week ended August 23 totaled 65,654 as compared with 64,247 in the previous week and 59,400 in the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
August 23, 1941 .....	65,654	29,844
August 16, 1941 .....	64,247	29,348
August 9, 1941 .....	60,535	28,354
August 24, 1940 .....	59,400	23,596
Cumulative Totals for Canada:		
August 23, 1941 .....	1,997,441	995,016
August 24, 1940 .....	1,742,957	822,618
August 26, 1939 .....	1,492,779	685,439

### Edwards Cost-Study's Basic Data Made Available by I. C. C.

The Interstate Commerce Commission, Division 2, has issued an order granting requests for access to the papers and underlying data which form the basis for cost studies prepared by Dr. Ford K. Edwards of the commission's Bureau of Statistics and incorporated in the record of the Nos. 28300 and 28310 investigations of the class rate structure and consolidated freight classification. The Edwards studies were among other reports from the commission's staff which were the subject of hearings held July 10 and 11 at St. Louis, Mo., as noted in the *Railway Age* of July 19, page 119.

The order states that requests for access to the data must be made to the secretary not later than September 15; and the examinations "shall take place without undue delay."

### Budd Wants Prompt Reports on Fuel Supply

W. C. Kendall, chairman of the Car Service Division, Association of American Railroads, has called for expedited reporting of the railroad fuel supply as of the beginning of each month—in order to meet a request from Ralph Budd, defense transportation commissioner, that such reports

be received "not later than the 5th of each month."

The information involved is reported on Form CS59, and Mr. Kendall's call for expedition came in an August 28 circular which said: "Beginning with the report due September 1, will you arrange for the information shown on this report to be available in Washington not later than the 4th of each month, using air mail or telegraph when necessary. In addition to the information called for on CS59, and for the report for September 1 only, will you advise plans of your road for storing coal for the 90-day period beginning September 1."

### Space for Transportation Board

The Public Buildings Administration has assigned the transportation study board Washington, D. C., office space in the Dupont Circle Apartments, which is located at Connecticut avenue and Dupont circle. It was stated at the office of C. J. Guthridge, PBA chief of planning and space control, that the assignment was made following discussions last week with Nelson Lee Smith, chairman of the transportation board.

The building is one which was recently leased by the government over the protest of many lease-holding tenants, some of whom have carried the matter to the courts. Meanwhile the transportation board's temporary office remained in the Interstate Commerce Commission building this week. There it was stated that all three members of the board—Chairman Smith, Vice-Chairman Robert E. Webb and C. E. Childe—were expected to be back in Washington on September 8 when they will hold a meeting and proceed to organize for their assignment.

### N. Y. Express Drivers Awarded Pay Boost

Some 3,300 employees of the Railway Express Agency in the New York metropolitan area have been granted an increase in wages from an average of \$35.45 a week to \$37.26, effective retroactively to August 14 and remaining in force until December 31, 1942. The increase, which applies almost entirely to truck drivers together with a few hundred helpers and less than 100 garagemen, is the result of the majority decision of an arbitration board set up under the provisions of the Railway Labor Act to settle a dispute between the Agency and Locals 4509 and 808, International Brotherhood of Teamsters. The increase is entirely local to New York and has the effect of boosting the wage rate to accord with that paid by the general teaming industry in that city.

In its demands, presented about April 1, the union had demanded a 10 per cent increase in wages, a reduction in working hours from 44 to 40 a week, and four additional paid holidays. The hours reduction request was withdrawn by the union during arbitration hearings, while the board itself rejected the plea for a boost in paid holidays. The board, which began hearings August 4, consisted of the following: (employer representatives) L. P. Bergman, general manager, R. E. A., San Francisco, Cal.; J. E. Skaggs, assistant to vice-president, R. E. A.; (union representa-

tives) R. J. Sheerin and J. J. McGovern; (impartial members) Professor I. L. Sharfman, University of Michigan; and Professor G. W. Stocking, University of Texas. The two employer representatives dissented from the decision of the majority.

### Southern Pacific Would Bring in Mexican Laborers

The Southern Pacific has asked the Immigration Bureau of the Department of Justice for permission to bring into the United States from Mexico some 600 Mexican laborers to be employed as maintenance-of-way workers on the company's lines in the southwestern states. The reason given for the application is that there now exists a shortage of labor in this section of the country.

The standard railroad labor organizations have filed a protest against the Southern Pacific's application, declaring that no such shortage exists that would justify the importation of Mexican laborers. It is understood that it is the present disposition of the Immigration Bureau to refuse the request of the carrier unless further evidence of the need is forthcoming.

The September 2 issue of "Labor," the weekly news organ of the railroad brotherhoods, states that the Southern Pacific desires to import some 8,000 laborers from Mexico. Inquiry at the Department of Justice reveals that the pending request is for only 600, while it was further stated that agricultural interests in Arizona had asked permission to bring in some 20,000 workers to expedite the harvesting of certain crops in that section of the country.

### J. J. Tatum Makes a Record

On September 17, J. J. Tatum, assistant chief of motive power and equipment, will celebrate his seventy-fifth birthday, as well as his sixty-second year of consecutive service with the Baltimore & Ohio Railroad. While the chairman of the board of that railroad, Daniel Willard, is five years older than Mr. Tatum, they both started in railroad service in the same year, 1879. Unlike Mr. Willard, however, Mr. Tatum has seen all of his service with one railroad. He has taken out 64 patents and eight copyrights for improvements to railroad equipment, and was among those who in February, 1940, were recipients of a Modern Pioneer Award from the National Association of Manufacturers.

Mr. Tatum supervised the building of the Adams "Windsplitter" train at the Mt. Clare shops. It was completed May, 1900, and was fitted with "shields and other devices for reducing the resistance of the air at high speed." The train consisted of five cars drawn by a standard locomotive. The tender, however, was built up to the height of the cars, so that there was no break between the engine cab and the baggage car. It can therefore be regarded somewhat as a forerunner of the modern streamliner.

Mr. Tatum was elected chairman of the Mechanical Division, A. R. A., in June, 1924. A talk made by him at about that time received widespread attention in the press, because of its novel suggestions of improvements to passenger carrying cars, including



air conditioning. A few years later, in 1930, the Baltimore & Ohio air-conditioned dining car, Martha Washington, was exhibited at the Atlantic City conventions.

### Settle Bay Line Strike

A threatened strike of operating employees of the 81-mi. Atlanta & St. Andrews Bay ("Bay Line") was averted on the night of August 28 by an agreement with the management compromising certain union demands, including a new basis of overtime pay. The strike had been set for 4 a. m., August 29, by the Brotherhood of Locomotive Firemen & Enginemen and the Brotherhood of Railroad Trainmen. Officers of the road, which operates from Panama City, Fla., to Dothan, Ala., together with bus and truck routes extending to Americus, Ga., Columbus and Pensacola, Fla., granted the operating employees new rules for working conditions, including so-called standard "trunk line" rates of pay and agreed to employ regular locomotive firemen on its Diesel-electric locomotives, now operated by an engineer and a maintainer.

A joint statement which announced that conferees "arrived at a basis that was mutually satisfactory" was issued by J. A. Streyer, president and general manager of the road, Dothan, Ala.; E. E. Oster, vice-president, B. R. T., Louisville, Ky., and H. H. Burnett, acting vice-president, B. of L. F. & E., Roanoke, Va. While full terms of settlement are not yet here available, union members reported that their demands had been met.

### Armament Activities of Car Builder Described in Radio Broadcast

The activities of the Pullman-Standard Car Manufacturing Company as a manufacturer of armaments was presented Saturday night, August 30, on the twenty-eighth "Defense for America" radio broadcast. This defense radio series, which is heard every Saturday night over the Red network of the National Broadcasting Company, originated from Chicago, Pullman, Ill., and Hammond, Ind. C. R. Little, president of the company; Wallace Barker, vice-president in charge of production; and Col. Donald Armstrong, ordnance officer of the Chicago district, were interviewed from a Chicago studio.

A description of the wing assembly plant at Pullman, where the company is assembling wings for the Douglas Aircraft Company, was given by Frank M. Gunn, superintendent of the division, Harry E. Reed, and Joe Kuling, foreman of the assembly crews. Announcer Graham McNamee told how the Hammond division is now manufacturing 28-ton tanks, trench mortars, 155mm. shells and 105mm. guns in addition to maintaining its schedule of four completed passenger-train cars daily and a finished freight car every 20 minutes.

### Says Pacific Greyhound Acquired Affiliates Unlawfully

Examiner Bruce W. Card of the Bureau of Motor Carriers' Section of Finance has recommended in a proposed report an Interstate Commerce Commission finding that Pacific Greyhound Lines, affiliate of

the Southern Pacific, violated the consolidation provisions of the Interstate Commerce Act when it acquired control of Tahoe Greyhound Lines in 1939 and of Pacific Southland Stages in 1936 without authority from the commission. The examiner would have the commission require Pacific to divest itself of the capital stock of Tahoe and Southland, and order Pacific's officers to discontinue their participation in the management of those companies.

When the acquisitions were consummated, the Interstate Commerce Act's consolidation provisions with respect to motor carriers were embodied in section 213 of the Motor Carrier Act, which included a provision to the effect that commission approval was not required for transactions involving not more than 20 vehicles. Pacific contended that only the vehicles of the carrier to be acquired were to be counted in qualifying for exemption; and both Tahoe and Southland had less than

20. However, the examiner cited commission decisions holding that vehicles of both parties to the transaction were to be counted—a requirement which was made specific when the Transportation Act of 1940 transferred the Motor Carrier Act's consolidation provisions to section 5 of Part I. Examiner Card also rejected the contention that the new provisions apply only to consolidations and not to acquisitions of control like those under consideration.

### I. C. C. Compilation of Balance Sheet and Income Items for June

The Interstate Commerce Commission on September 3 made public its Bureau of Statistics' latest monthly compilation of selected income and balance sheet items, showing June's net income of the Class I roads to have been \$52,800,181 and that for this year's first six months at \$169,993,733. Later figures for July and the year's first

### SELECTED INCOME AND BALANCE-SHEET ITEMS OF CLASS I STEAM RAILWAYS

Compiled from 132 Reports (Form IBS) Representing 137 Steam Railways  
(Switching and Terminal Companies Not Included)

	All Class I Railways			
	For the month of June		For the six months of	
	1941	1940	1941	1940
<b>Income Items</b>				
1. Net railway operating income.....	\$93,261,379	\$48,090,777	\$433,538,413	\$245,523,108
2. Other income .....	15,039,186	15,124,357	68,930,436	71,483,484
3. Total income .....	108,300,565	63,215,134	502,468,849	317,006,592
4. Miscellaneous deductions from income..	2,670,236	2,810,284	16,829,495	15,729,322
5. Income available for fixed charges	105,630,329	60,404,850	485,639,354	301,277,270
6. Fixed charges:				
6-01. Rent for leased roads and equipment .....	13,302,501	11,881,411	77,552,735	67,150,864
6-02. Interest deductions <sup>1</sup> .....	38,449,974	39,760,767	231,065,492	236,353,629
6-03. Other deductions .....	119,355	129,119	712,663	776,633
6-04. Total fixed charges .....	51,771,830	51,771,297	309,330,890	304,281,126
7. Income after fixed charges .....	53,858,499	8,633,553	176,308,464	*3,003,856
8. Contingent charges .....	1,058,318	1,016,046	6,314,731	6,111,487
9. Net income .....	52,800,181	7,617,507	169,993,733	*9,115,343
10. Depreciation (Way and structures and equipment) .....	18,076,841	17,146,356	107,277,582	102,072,287
11. Federal income taxes .....	19,617,502	4,981,362	67,426,338	20,805,882
12. Dividend appropriations:				
12-01. On common stock .....	6,519,890	3,172,949	46,189,431	43,588,681
12-02. On preferred stock .....	75,000	340,746	11,306,673	9,568,822
Ratio of income to fixed charges <sup>2</sup> (Item 5 ÷ 6-04) .....	2.04	1.17	1.57	.99
<b>Selected Asset and Liability Items</b>				
13. Investments in stocks, bonds, etc., other than those of affiliated companies (Total, account 707) .....			\$558,497,515	\$599,919,535
14. Cash .....			\$736,026,415	\$479,226,442
15. Temporary cash investments .....			77,110,960	53,947,526
16. Special deposits .....			139,319,275	132,411,236
17. Loans and bills receivable .....			1,531,185	1,462,150
18. Traffic and car-service balances—Dr. ....			32,775,008	22,770,170
19. Net balance receivable from agents and conductors.....			73,387,137	49,714,583
20. Miscellaneous accounts receivable .....			152,638,639	123,760,303
21. Materials and supplies .....			377,618,920	350,326,010
22. Interest and dividends receivable .....			16,697,521	20,841,608
23. Rents receivable .....			1,206,031	1,403,801
24. Other current assets .....			7,883,647	6,302,373
25. Total current assets (items 14 to 24).....			\$1,616,194,738	\$1,242,166,202
26. Funded debt maturing within 6 months <sup>3</sup> .....			79,579,889	148,816,071
27. Loans and bills payable <sup>4</sup> .....			\$72,249,573	\$135,160,455
28. Traffic and car-service balances—Cr. ....			56,795,727	42,757,631
29. Audited accounts and wages payable.....			252,822,234	224,552,384
30. Miscellaneous accounts payable .....			58,088,900	68,298,486
31. Interest matured unpaid .....			56,545,801	49,134,913
32. Dividends matured unpaid .....			24,824,190	14,322,809
33. Unmatured interest accrued .....			63,032,362	70,026,928
34. Unmatured dividends declared .....			6,720,300	4,293,240
35. Unmatured rents accrued .....			17,071,373	16,777,629
36. Accrued tax liability .....			274,583,463	210,896,324
37. Other current liabilities .....			44,150,580	78,578,717
38. Total current liabilities (items 27 to 37).....			926,884,503	914,799,516
39. Analysis of accrued tax liability:				
39-01. U. S. Government taxes.....			154,597,354	87,979,653
39-02. Other than U. S. Government taxes.....			119,986,109	122,916,671

\* Deficit.

<sup>1</sup> Represents accruals, including the amount in default.

<sup>2</sup> For railways in receivership and trusteeship the ratio was as follows: June, 1941, 1.33; June, 1940, .38; 6 months 1941, 1.03; 6 months 1940, .37.

<sup>3</sup> Includes payments of principal of long-term debt (other than long-term debt in default which will become due within six months after close of month of report).

<sup>4</sup> Includes obligations which mature not more than 2 years after date of issue.

## NET INCOME OF LARGE STEAM RAILWAYS

(Switching and Terminal Companies Not Included)

Name of Railway	Net income after depreciation		Net income before depreciation	
	For the six months of 1941	1940	For the six months of 1941	1940
Alton	\$123,391	\$1,194,690	\$13,505	\$1,064,629
Atchison, Topeka & Santa Fe <sup>1</sup>	7,701,498	1,672,562	13,793,472	4,269,146
Atlantic Coast Line	4,884,512	1,142,845	6,071,921	119,895
Baltimore & Ohio	8,869,820	1,150,433	12,627,211	2,447,465
Boston & Maine	3,225,150	98,582	3,935,285	627,743
Central of Georgia <sup>2</sup>	301,800	1,251,831	734,909	825,098
Central of New Jersey <sup>3</sup>	506,205	1,808,353	153,107	1,106,462
Chesapeake & Ohio	15,502,162	16,282,529	19,789,539	20,499,236
Chicago & Eastern Illinois	787,616	994,747	1,096,662	692,072
Chicago & North Western <sup>2</sup>	571,395	6,707,535	1,841,027	4,233,969
Chicago, Burlington & Quincy	2,971,990	2,175,452	5,754,219	446,244
Chicago Great Western	640,404	607,497	923,591	326,606
Chicago, Milwaukee, St. Paul & Pacific <sup>3</sup>	67,584	8,296,588	2,960,570	5,332,899
Chicago, Rock Island & Pacific <sup>3</sup>	1,178,120	5,338,450	3,358,972	3,272,301
Chicago, St. Paul, Minneapolis & Omaha	774,253	1,726,592	505,829	1,442,746
Delaware & Hudson	1,525,290	514,852	2,098,092	1,042,152
Delaware, Lackawanna & Western	1,972,794	420,001	3,209,488	799,657
Denver & Rio Grande Western <sup>2</sup>	2,332,528	3,030,319	1,673,624	2,407,845
Elgin, Joliet & Eastern	3,006,274	1,201,955	3,623,291	1,687,521
Erie (including Chicago & Erie) <sup>3</sup>	3,416,404	1,651,546	5,270,422	168,653
Grand Trunk Western	1,330,340	12,696	1,914,526	606,273
Great Northern	3,184,498	660,714	5,353,939	1,184,011
Gulf, Mobile & Ohio	950,290	629,245	1,376,077	253,670
Illinois Central	4,727,810	1,759,375	8,077,140	1,427,401
Lehigh Valley	1,826,166	612,987	2,831,122	430,950
Long Island	595,931	1,067,655	189,872	482,744
Louisville & Nashville	7,446,670	3,572,580	9,678,376	5,745,100
Minneapolis, St. Paul & Sault Ste. Marie <sup>2</sup>	3,048,365	3,069,351	2,409,689	2,456,817
Missouri-Kansas-Texas	964,918	1,971,057	388,059	1,375,595
Missouri Pacific <sup>2</sup>	293,505	7,400,640	1,959,177	5,155,082
New York Central <sup>1</sup>	11,858,506	576,136	20,951,046	7,382,841
New York, Chicago & St. Louis	4,312,665	547,894	5,145,541	1,341,878
New York, New Haven & Hartford <sup>2</sup>	2,143,607	3,162,454	3,804,087	1,508,871
Norfolk & Western	14,266,976	15,719,876	17,578,921	18,826,491
Northern Pacific	252,654	2,366,477	2,098,345	681,652
Pennsylvania	17,110,378	13,443,637	31,324,363	26,904,085
Pere Marquette	1,830,754	343,930	2,992,722	1,485,223
Pittsburgh & Lake Erie	2,853,732	1,756,733	4,059,663	2,850,627
Reading	4,484,343	2,309,916	6,003,105	3,835,386
St. Louis-San Francisco <sup>2</sup>	1,113,246	5,342,077	389,942	3,819,906
St. Louis, San Francisco & Texas	27,750	177,609	27,750	177,470
St. Louis Southwestern <sup>2</sup>	1,565,647	264,919	1,893,589	52,635
Seaboard Air Line <sup>2</sup>	571,141	2,515,984	1,789,750	1,349,493
Southern	7,656,579	1,038,471	9,544,272	2,802,710
Southern Pacific <sup>2</sup>	14,262,074	3,775,728	18,312,997	192,335
Texas & Pacific	1,364,117	434,263	1,998,275	1,039,844
Union Pacific (including leased lines)	5,782,465	3,858,664	9,864,534	7,655,172
Wabash <sup>1</sup>	897,331	2,451,734	1,982,742	1,372,009
Yazoo & Mississippi Valley	523,217	204,439	796,084	39,938

<sup>\*</sup> Deficit.<sup>1</sup> Report of receiver or receivers.<sup>2</sup> Report of trustee or trustees.<sup>3</sup> Under trusteeship, Erie R. R. only.<sup>4</sup> Includes Atchison, Topeka & Santa Fe Ry., Gulf, Colorado & Santa Fe Ry., and Panhandle & Santa Fe Ry.<sup>5</sup> Includes Boston & Albany, lessor to New York Central R. R.

<sup>6</sup> Includes Southern Pacific Company, Texas & New Orleans R. R., and leased lines. The report contains the following information: "Figures reported above for Southern Pacific Transportation System exclude offsetting debits and credits for interest on funded securities and rentals for leased properties between companies included therein. Operations for 1941 of separately operated Solely Controlled Affiliated Companies (excluding results for Southern Pacific Railroad Company of Mexico), not included in above statement, resulted in a net loss of \$199,663 for the month and \$1,742,917 for the period. These results include \$222,434 for the month and \$1,316,128 for the period, representing interest on bonds of such companies owned by Southern Pacific Company not taken into income by S. P. Co., and, therefore, not included in the 1941 income results for the System reported above. The combined results for 1941 for Southern Pacific Transportation System and separately operated Solely Controlled Affiliated Companies (excluding S. P. R. Co. of Mexico) amounted to a net income of \$4,617,864 for the month and \$13,835,285 for the period. Figures herein given exclude results of Southern Pacific Railroad Company of Mexico for the reason that policy was adopted January 1, 1940, of making no further advances to that company, it being required to conduct its operations entirely within its own resources."

seven months, as reported by the Association of American Railroads, are shown elsewhere in this issue.

The commission's statement shows that roads not in receivership or trusteeship had a June net income of \$49,115,737 as compared with \$17,347,354 in the same month last year; while their net income for this year's first half was \$171,742,182 as compared with \$49,917,604 in the first six months of 1940.

One hundred and two roads reported net incomes for June, while 27 reported net deficits; in June, 1940, there were 57 net incomes and 72 deficits. For this year's first half 92 roads reported net incomes and 37 reported net deficits, as compared, respectively, with 57 net incomes and 72 deficits in the first six months of 1940. The consolidated statement for all Class I roads and that showing net incomes or deficits

of "large steam railways" are given in the accompanying tables.

## Priorities for Research Equipment

The Office of Production Management's Division of Priorities has granted a defense priority rating of A-2 to equipment needed by research laboratories. The announcement stated that the Priorities Division has secured the assistance of the National Academy of Sciences in the operation of this new Research Laboratories Supplies Plan, the Academy to advise upon applications from laboratories for assistance.

A laboratory experiencing difficulty in securing essential materials, and wishing to qualify for the A-2 rating, should apply to the Chemical Branch, Office of Production Management, Washington, D. C., on Form PD-88. The preference rating may

be extended as far as necessary to assure ultimate delivery of scarce materials to the laboratory, although no extensions of the rating to suppliers will be made directly by the Priorities Division; this must be done by the laboratory itself.

In the event that the laboratory finds itself unable to obtain some essential material with the A-2 rating, it should file an application with the Priorities Division on Form PD-1. If the research project is deemed of sufficient importance, the Priorities Division will issue an individual preference rating certificate, assigning a higher rating to a particular delivery of specified material.

## Credit Rules for Water Carriers

Regulations similar to the credit rules for railroads have been prescribed by the Interstate Commerce Commission, Division 2, to govern the settlement of rates and charges of common carriers by water. The order is in Ex Parte No. 143 and it becomes effective October 5.

Having satisfied themselves that a shipper is a good credit risk, the water carriers, like the railroads, will be permitted as a general rule to extend credit for a 48-hr. period; when retention or possession of the freight until charges have been paid will retard prompt delivery or prompt release of equipment, credit may be extended for a period not exceeding 96 hrs.

Different from the railroad rules is the regulation covering presentation of freight bills where the limit for water carriers is the second 12 o'clock midnight following delivery of the freight; the railroad limit is the 12 o'clock midnight following delivery. Also different is the regulation covering situations where information sufficient to compute the tariff charges is not readily available. In such a case the water carriers must present within 15 days a freight bill based upon the best available information, and correct the matter later. The comparable railroad rule provides that bills shall be presented by the first 12 o'clock midnight following the day on which sufficient information becomes available.

## Strike Vote Counted

Tabulation of the strike vote of members of the 19 railway unions which have demanded increased pay, was completed this week and at the time of going to press, the brotherhoods were debating whether to announce the results on September 5. Preliminary figures, according to spokesmen of the unions, favor the calling of a strike.

A. F. Whitney, president of the Brotherhood of Railway Trainmen, disclosed, on September 3, that the tabulation of the vote of his organization showed that 92,000, or 99.2 per cent of the ballots counted at that time, favored the strike. This brotherhood, according to Mr. Whitney, added 3,500 members in August bringing the total membership to 162,217.

The taking of the vote was started in August after the railroads, on August 5, refused to grant the unions' demands for pay increases. The ballot submitted to members of the five operating brotherhoods contained two issues: The railroad's rejection of the employees wage increase de-



mand and the proposal of the railroads to change working rules. That submitted to the members of the 14 non-operating brotherhoods contained four issues: The two mentioned above; the carrier's refusal to give vacations with pay; and the western railroad's counter proposal to reduce wages 10 per cent.

Mediation began at Chicago on August 14 when the three members of the National Mediation Board started separate meetings with the chiefs of the five operating brotherhoods; with the representatives of the 14 non-operating brotherhoods and with the conference committees of the railroads. Meetings with the three groups have been held behind closed doors every day with the exception of Sundays and holidays. Although the wage issue and vacations with pay have come up from time to time the meetings from August 14 to 29 have been devoted to discussions of rule changes. On September 3, after the members of the Board have returned from Washington where they had spent the holidays, mediation of the demands of the brotherhoods for pay increases was started. Mediation of the rule changes, however, will be continued.

### Labor Day Passengers Make a Record in New York

All railroads serving the city of New York report an extremely heavy increase in Labor Day week-end travel over last year, and some rang up an all-time record. The Pennsylvania, which had anticipated at the most 20 per cent increase in traffic in and out of New York, actually had an increase of 30.5 per cent. From Friday, August 29, to Monday, September 1, inclusive, it carried 383,450 passengers over its New York division (excluding Long Island traffic), an increase of 89,577 over the corresponding four days of 1940. On Monday 120,551 passengers arrived at and departed from Pennsylvania station, which is the largest number ever handled at the station since its opening in 1910. The record of 109,000 established last July 3 was thereby surpassed. To handle this record crowd the road set up, for the first time, six temporary ticket-selling booths on the west side of the main concourse. These supplemented 58 regular and extra ticket

wickets hitherto available. Of the total passengers about 10,000 represented troops on furlough from army camps in the South. A portion of these were handled in 10 special military trains.

On Monday, from 3 p. m. to about midnight, the entrance gates to Washington (D. C.) trains were never closed, passengers boarding in a continuous stream what amounted to a 220-mi. rapid transit service. Beach travel on the affiliated Long Island was 80,378 passengers in and out on Sunday and 71,585 on Monday, representing increases of 141 per cent and 23.4 per cent, respectively, over corresponding dates of 1940. On Monday the road carried 30,000 passengers to Aqueduct race-track on its opening day, establishing an all-time record of travel to that track. The Pennsylvania and Long Island curtailed most of their regular excursions on Monday, but the latter operated its fishing excursions as usual. Its Montauk Point excursion on Sunday carried 1,115 customers, an increase of 87 per cent over last year.

The New York, New Haven & Hartford reports that its traffic in and out of New York was 20 per cent over last year at the very least. This for the reason that ticket sales for the four-day week-end at Grand Central terminal showed this increase over last year. Since inbound traffic showed an even greater improvement, the total passenger volume should show an increase up to 30 per cent, when conductors' totals are compiled. Monday was the peak day, since not only "week-enders" rode the trains but summer vacationists from New England resorts returned to their homes on that date. Contributing to the week-end traffic was the return of about 12,000 children from summer camps, which travel began the previous week-end and continued all week into the holiday period. The road operated its regular one-day coach excursions to and from Boston, Mass., Springfield, Pittsfield and intermediate points as usual. No troop trains were handled but a large number of soldiers from Fort Devens, Mass., rode the regular trains. Official comment on the week-end passenger business was "heaviest in years."

The New York Central reports that its ticket sales on the system during the four-day holiday period ran about 15 per cent over those of last year. Some 16,000 more

passengers traveled in and out of Grand Central terminal on New York Central trains this holiday period than last year, representing an increase of about 5 per cent. The road carried very few troops over the four-day period, inasmuch as furloughs of soldiers situated along its lines were postponed on account of maneuvers in the field.

The Central of New Jersey reports that its passenger traffic via all-rail was up 35 per cent over last year and traffic on its Sandy Hook steamer route up over 100 per cent. The increase in the former category represented almost entirely travel to the New Jersey seacoast. The Delaware, Lackawanna & Western estimates that its holiday business was up about 33½ per cent over last year.

The Erie estimates a 10 to 15 per cent increase in volume over last year while the Lehigh Valley enjoyed a "substantial increase." Statistics compiled by the New York, Ontario & Western show 25 per cent more business this summer than last, with all indications that the week-end volume was even better. All roads emphasize that the improved showing this year is in spite of the last-minute rush to the World's Fair last year and accompanying special rates not now applying.

### Yankee Basis of Truck Rates OK

(Continued from page 382)

Bureau and the shippers in general." Other protestants joining the Eastern Conference in its proposal were the Atlantic Seaboard Motor Conference and the Commercial Motor Vehicle Association of Maine; while the New England Transportation Company, affiliate of the New York, New Haven & Hartford, also "supports the proposals of the Eastern Conference except to the extent that no ex pool car rates are sought." From the standpoint of the general proposals of the New England Bureau, the examiner states the N. E. T. view as being one which holds "that the average costs submitted by that group are too low, on the ground that they do not take into account some of the more important elements of operating cost, such as the elements of circuitry, back haul and empty truck miles."

The New England railroads participated in the hearings "as their interests might appear" and "do not advocate the prescription of class rates and classifications based on either of the theories of motor carrier rate construction proposed by the New England Bureau and the Eastern Conference. They urge that the commission, in view of the principles set forth in Part II of the Interstate Commerce Act, determine whether the advocates of either of the proposals have furnished in the record information necessary to show that their proposals meet the requirements of the act."

Generally, the proposals of the New England Bureau are as follows: (1) A revision of the present New England classifications to be known as the Uniform Motor Freight Classification, with accompanying rules and regulations; (2) readjustment of the rate bases from and to



Scattered Groups of Railroad Patrons Like These Boarding a Southbound Boston & Maine-Central Vermont Train at Rural Claremont Junction, N. H., Combined to Make Big Labor Day Crowds at Metropolitan Terminals

which the rates would apply, within the territory covered by the investigation; (3) readjustment of the group areas in the Boston and New York metropolitan areas, including northeastern New Jersey; (4) revised class rate scales for application between the readjusted rate bases for short-line distances over hard-surfaced highways. The architects of the classification, known as the Uniform Classification Conference, endeavored to reclassify all of the commodities for which ratings were provided in the New England classifications, observing the following principles: Simplicity of rules; and ratings based principally on the density (weight per cubic foot) of the commodities in their various shipping forms. There are some 7,500 ratings in the proposed Uniform Classification, including 300 which were judged to have characteristics requiring higher rating than density alone would justify.

In supporting its proposed classification, the New England Bureau stressed the point "that the motor carrier should have a classification and rate structure which recognizes the limitations they are faced with from the standpoint of available space in which to transport property." Thus the contention that "the density of the various articles moving in interstate commerce must be given prime consideration." And this density theory of classification, the proposed report says in another place, "carries along with it a class rate structure based on the average cost incurred by New England carriers in performing the transportation service, plus a reasonable margin over the cost for profit." Accordingly, the proposed rate structure is based on a cost study which produced a formula for arriving at average costs.

The basic formula is the cost of handling freight rated fifth class for different distances and at different minimum loads; costs for other classes were obtained by applying to the fifth-class cost percentage ratios based on the relationship of the densities assigned to the several classes. Fifth-class freight would be that with a density of from 20 to 40 lb. per cu. ft., while the highest class (Class A) would have a density of under three lb. per cu. ft. A new sixth class is proposed for freight of 40 lb. or more per cu. ft. The rates which include the element of profit are determined by applying operating ratios to the cost figures. While conceding that some criticisms of the cost data were justified, the examiner nevertheless found it "evident from the record that the New England Bureau made a conscientious effort to obtain the required information and that their basic formula is sound."

The proposed report discusses in detail the cost studies and the construction therefrom of the proposed rates. Also, there is a comprehensive review of presentations made by protestants. Discussing the latter's arguments in support of the National Motor Freight Classification, the examiner at one point notes how that classification is based largely on the rail classification, adding that it is difficult to see how a rate structure built up over a period of years to fit rail transportation would, without considerable modification, "automatically produce just and reasonable rates and charges for the transportation of property

by motor carriers, at the same time giving due consideration, among other factors, to the inherent advantages of transportation by such carriers . . . and the need in the public interest of adequate and efficient transportation service by the motor carriers at the lowest cost consistent with the furnishing of such service." As he next leads up to his general recommended finding Examiner Warner has this to say:

"Unquestionably, the motor carriers have a limited amount of space available in which to transport property, and it is reasonable that primary consideration should be given to this circumstance. A class rate structure based generally on the theory that a definite revenue return should be obtained for a given amount of space occupied in a vehicle, regardless of the article or articles occupying such space, is a step in the right direction. It is the key to unlock the door to an overall rate structure that will best serve the needs and problems of the motor carrier industry and shippers in New England. Competition with other forms of transportation may not be overlooked; to do so would be disastrous. There are instances in which the competition between the railroads and the motor carriers is so keen as to require the publication of rates at competitive levels. These instances can best be taken care of through the medium of commodity rates between the points and on the traffic where the competition actually exists. This method of procedure should do away with any necessity of attempting to modify the rate structure of competing forms of transportation to fit the services performed by motor carriers, particularly between points between which there is no service performed by the competitors of the motor carriers, or between which there is a wide disparity in the distances over the highways and the railroads. . . .

"The commission should find that the principle of the rate structure proposed by the New England Bureau is the sounder of the two principal proposals, and the continued use of the 'cost plus' system of rate making for carriers in New England will in the end cause less difficulty than to change now to a rate structure patterned after that of the railroads which, in the many instances to which reference has been made, departs from a strict adherence to the publication of a level of class rates the same as that now maintained by the railroads."

From here Examiner Warner went on to indicate the extent to which he would modify the New England Bureau proposals before he would have the commission extend approval of the general idea down to all the details.

### Retirement Board Rulings

Service as a member of the board of directors of a company, even if performed for compensation, does not constitute compensated service within the meaning of the Railroad Retirement Act, according to a recent ruling by the general counsel of the Railroad Retirement Board. A person performing such service would therefore be able to receive an annuity without having to resign from the board. Under the act, it is necessary to cease "compensated service"

to any person, whether or not an employer under the act, before an annuity can be awarded.

In another ruling the general counsel had held that news agents who work for the Interstate Company under contracts with railroad companies are not employees under the Retirement and Unemployment Insurance Acts. The ruling was based on the theory that since the news agents were not subject to the continuing authority of the railroad companies to supervise and direct the manner of rendering their service, they cannot be considered employees of the railroad companies.

Train dispatchers who work in Mexico have been ruled to be employees under the Retirement and Unemployment Insurance Acts when dispatching trains operated by two companies which do most of their business in the United States. In making his ruling the general counsel found that the dispatchers constantly receive instructions from operating officials of the two United States railroads, and each train order issued by the dispatchers and every movement of the trains are subject to the supervision of these officials. The dispatchers, in dispatching all trains, are governed by the rules and regulations of one of the United States companies. They are required to obtain a book of these rules and regulations, to take a written examination on them, and to attend classes of instruction.

### A-3 Preference Rating for Trucks and Buses

A blanket preference rating of A-3, the same as that accorded freight cars and locomotives, has been assigned to motor trucks by the Office of Production Management's Priorities Division in an order dated August 30. The ratings will be granted to truck manufacturers upon individual applications, and they may be extended by the manufacturer to his suppliers.

The assistance being given to truck manufacturers, the OPM announcement said, "is based on indications that 1,189,000 trucks, approximately 200,000 more than the output during the model year ended July 31, will be required during the new model year that began August 1." The rating applies to heavy trucks (three tons or over), medium trucks (1½ tons to three tons), trailers (five tons or over), public passenger carriers (motor or electric coaches with not less than 15 seats), and "essential replacement parts for all these vehicles."

The announcement went on to say that the way in which the order will affect each class of production may be indicated as follows:

"(1) *Heavy trucks.* No limitation will be placed on the production of heavy trucks, and a producer of these trucks may use the A-3 rating to obtain such material as he can absorb in his production facilities.

"(2) *Medium trucks.* A producer of medium trucks may use the rating to get material for all defense orders and also to fill civilian orders during the three months' period September 1-November 30 at the rate of one-half of his production during the first half of the year. This means, in effect, that the producer may manufacture



all defense trucks necessary and may continue to produce civilian trucks at his going rating during the first half of 1941.

"(3) *Truck trailers.* Producers of truck trailers may also use the A-3 rating for all defense work and for continued production of trailers at the going rate during the first half of the year.

"(4) *Public passenger carriers.* Producers of these carriers may also use the rating to produce all defense orders and to produce civilian carriers at the going rate during the first half of the year.

"(5) *Replacement parts.* No limitation is placed on the production of replacement parts.

"(6) No limitation is placed on the production of bodies or cabs for the heavy or medium trucks, the truck trailers or passenger carriers.

"The net effect of the order will be to expedite production of heavy trucks at the present peak rate and to facilitate production of other trucks covered by the order at the going rate. Although the order places limitations on the production of medium trucks, truck trailers and passenger carriers, it will permit continued production of these items at a rate higher than would be the case if the rating were not to be used to obtain materials."

### Priorities for Highway Construction

A program of assistance to highway construction has been outlined in a letter of intent addressed by the Priorities Division, Office of Production Management, to Thomas H. MacDonald, commissioner of the Public Roads Administration. The letter made clear that the Priorities Division is ready to facilitate the acquisition of material and supplies for the development of a strategic network of highways approved by the War Department in conformity with a master plan; other classes of roads, specified in the letter, also will be given priority preferences.

By distributing copies of the letter to prospective contractors and suppliers, at the time of letting contracts, the Public Roads Administration and the state highway departments will indicate the preference ratings available for the several types of construction to be expedited. If priority assistance is required in order to obtain deliveries of materials, supplies and equipment on schedule, an application can be made by the state highway department concerned, through PRA, to the Project Section, Division of Priorities, OPM, for the issuance of a preference rating order.

Six classes of favored roads, and the preference ratings to be granted, are listed in the letter. They are as follows:

1. Access Roads:
  - a. Access Roads to Military and Naval Establishments.
 

Preference Rating of the Access Road Project shall correspond to the rating of the military and naval establishment served; that is, a naval air station or army air base will have a rating of A-1-e, and an army cantonment other than air corps would have a rating of A-1-j.
  - b. Access Roads to Defense Manufacturing Establishments.
 

Preference rating of the Access Road Project shall correspond to the rating of the defense establishment served, except that the highest rating which can be assigned is A-1-e.
2. Strategic Network of Highways:
  - a. All bridges, tunnels, structures and approaches

- b. New roads or the improvement of substandard roads and grade separation structures
  - c. Shoulder widening and minor drainage structures
  - d. All other work
3. Federal-aid system:
    - a. All bridges, tunnels, structures and approaches
    - b. New roads or improvement of substandard roads, and grade separation structures
    - c. Shoulder widening and minor drainage structures
    - d. All other work
  4. Federal-Aid Secondary and National Park & Forest Projects:
    - a. Bridges and approaches
    - b. New roads or the improvement of substandard roads and grade separation structures
    - c. All other work
  5. Projects for the construction or improvement of the Inter-American Highway
  6. Construction of the Trans-Isthmian Highway and the Chorrera-Rio Hato Highway in Panama

A-2  
A-4  
A-10  
B-3  
A-3  
A-7  
A-10  
B-3  
A-7  
A-10  
B-3  
A-3  
A-1-b

### Program for the Roadmasters Convention

The Roadmasters and Maintenance of Way Association will hold its fifty-sixth annual convention in the Hotel Stevens, Chicago, on September 16-18 with a program keyed to the critical problems confronting track maintenance officers in so conducting their operations as to meet the traffic requirements of the railways. The program is as follows:

#### Tuesday, September 16

##### Morning Session—10:00 A. M.

Convention called to order  
Opening address by C. H. Buford, vice-president, Operations and Maintenance division, Association of American Railroads, Washington, D. C.

Greetings from the American Railway Engineering Association, F. L. C. Bond (vice-president and general manager, C. N.), President

Greetings from the American Railway Bridge and Building Association, H. M. Church (general supervisor bridges and buildings, C. & O.), President

Greetings from the Track Supply Association, E. C. Argust (vice-president and secretary, Morden Frog & Crossing Works), President

Address by President J. J. Clutz (division engineer, Penna., Indianapolis, Ind.)

Report of Committee on Rail-End Wear—Causes and Corrections; C. W. Baldridge, chairman (assistant engineer, A. T. & S. F., Chicago)

##### Afternoon Session—2:00 P. M.

Report of Committee on Roadway Machines—Off-Track vs. On-Track Types; A. L. Kleine, chairman (division engineer, D. & R. G. W., Salt Lake City, Utah)

Address on The Use of Cars and Locomotives by Maintenance of Way Forces in Times of Maximum Traffic Demands, by B. R. Kulp, chief engineer, C. & N. W., Chicago

Adjourn at 4:00 P. M. to visit exhibit of Track Supply Association

#### Wednesday, September 17

##### Morning Session—9:30 A. M.

Report of Committee on Gravel Ballast—Its Requirements and Preparation; E. J.

Brown, chairman (district engineer maintenance, C. B. & Q., Galesburg, Ill.)

Address on Men—How We Can Meet the Requirements of an Expanding Program in a Period of Widespread Industrial Activity, by Fred S. Schwinn, assistant chief engineer, M. P., Houston, Tex.

Report of Committee on Recent Developments in the Renewal of Ties; F. G. Campbell, chairman (assistant chief engineer, E. J. & E., Joliet, Ill.)

##### Afternoon Session—2:00 P. M.

Address on What We Face in Materials, by E. A. Clifford, chief purchasing officer, C. & N. W., Chicago

Address on What We Face in Equipment, by G. R. Westcott, assistant engineer, M. P., St. Louis, Mo.

Address on What We Can Do About It, by H. R. Clarke, engineer maintenance of way, C. B. & Q., Chicago

Adjourn at 4:00 P. M. to visit exhibit of Track Supply Association

Wednesday Evening—6:30 P. M.

Annual dinner given by the Track Supply Association

#### Thursday, September 18

##### Morning Session—9:30 A. M.

Report of Committee on Present-Day Roadway Drainage Requirements; W. B. Bailes, chairman (supervisor, Southern, Charlottesville, Va.)

Address on Streamlining Our Maintenance of Way Practices to Meet the Conditions of a Defense Era, by A. E. Perlman, chief engineer, D. & R. G. W., Denver, Colo.

Report of Committee on Maintaining Right-of-Way Fences—Organization and Methods; F. J. Meyer, chairman (roadmaster, N. Y. O. & W., Middletown, N. Y.)

##### Afternoon Session—1:00 P. M.

Summing Up—A review of the constructive ideas developed during the convention, by G. L. Sitton, chief engineer, maintenance of way and structures, Eastern region, Southern, Charlotte, N. C.

Closing Business

(All sessions will be held on Chicago Daylight Saving Time—One Hour Later Than Central Standard Time.)

### Plenty of Gas Via Tank Cars

(Continued from page 382)

of the diversion of tankers. He felt that the public was not thoroughly aware of this shortage and urged that they should reduce their consumption of gasoline in the interests of national defense. As a result of questioning, Mr. Davies admitted that a previous story that his office had given out to the effect that the East had only a 10 days' supply of gasoline left was erroneous and misleading because of the fact that at no time does that section of the country have more than that amount on hand. He also said that his office had asked the oil companies to use tank cars more extensively, but he did not feel that the cars were in existence so that they could be used.

The remaining witness was Admiral

Emory Land, chairman of the Maritime Commission, who gave the committee the benefit of his knowledge of the tanker situation. He felt that the present situation would be eased somewhat in the very near future by the addition to the tanker fleet of some 26 tankers now owned by various belligerents and lying in South and Central American ports.

He was absolutely opposed to the construction of the large pipe line from Texas to New York, taking the position that it would require 750,000 tons of steel which he wanted for his ship construction program. Better, he felt, the country should construct concrete, steel-reinforced barges which could be towed behind a tanker. Each barge would carry about 7,000 tons or 47,000 barrels of oil, and one barge could be tied to each tanker. Not only would the barges take little steel, but they could be built very speedily, thus alleviating the present situation in a short time.

Meanwhile, President Roosevelt has authorized the Southeastern Pipeline Company to utilize the eminent domain provisions of the recently-enacted Cole pipe line law, thus enabling it to complete the construction of its line from Port St. Joe, Fla., to Chattanooga, Tenn. The line is already laid, except for certain railroad and highway crossing for which the company had been unable to get permission from the railroads in Georgia and the state highway commission.

Ralph Budd, transportation coordinator, was scheduled to testify at the September 4 session of the committee.

## Meetings and Conventions

The following list gives names of secretaries, dates of next or regular meetings and places of meetings:

**ALLIED RAILWAY SUPPLY ASSOCIATION.**—J. F. Gettrust, P. O. Box 5522, Chicago, Ill.  
**AMERICAN ASSOCIATION OF FREIGHT TRAFFIC OFFICERS.**—W. R. Curtis, F. T. R. M. & O. R. R., 327 S. La Salle St., Chicago, Ill.  
**AMERICAN ASSOCIATION OF GENERAL BAGGAGE AGENTS.**—E. P. Soebbing, 1431 Railway Exchange Bldg., St. Louis, Mo. Annual meeting, October 7-9, 1941, San Francisco, Cal.  
**AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.**—B. D. Branch, C. R. R. of N. J., 143 Liberty St., New York, N. Y. Annual meeting, November 11-13, 1941, Del Monte Hotel, Del Monte, Cal.  
**AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.**—F. O. Whiteman, Room 332, Dearborn Station, Chicago, Ill. Annual meeting, May 12-14, 1942, Hotel Stevens, Chicago, Ill.  
**AMERICAN ASSOCIATION OF RAILWAY ADVERTISING AGENTS.**—E. A. Abbott, Poole Bros., Inc., 85 W. Harrison St., Chicago, Ill. Annual meeting, January 16-17, 1942, St. Louis, Mo.  
**AMERICAN ASSOCIATION OF SUPERINTENDENTS OF DINING CARS.**—F. R. Borger, C. I. & L. Ry., 836 S. Federal St., Chicago, Ill. Annual meeting, September 29-October 1, 1941, Hotel Drake, Chicago, Ill.  
**AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.**—F. O. Whiteman, Room 332, Dearborn Station, Chicago, Ill. Annual meeting, October 14-16, 1941, Hotel Stevens, Chicago, Ill.  
**AMERICAN RAILWAY CAR INSTITUTE.**—W. C. Tabbert, 19 Rector St., New York.  
**AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.**—G. E. Smith, New York Central R. R., La Salle Street Station, Chicago, Ill. Annual meeting, October 27-29, 1941, Palmer House, Chicago, Ill.  
**AMERICAN RAILWAY ENGINEERING ASSOCIATION.**—Works in cooperation with the Association of American Railroads, Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 17-19, 1942, Palmer House, Chicago, Ill.  
**AMERICAN RAILWAY MAGAZINE EDITORS' ASSOCIATION.**—M. W. Jones, Baltimore & Ohio R. R., 1105 B. & O. R. R. Bldg., Baltimore, Md.

Annual meeting, November 14-15, 1941, Hotel Monteleone, New Orleans, La.  
**AMERICAN SHORT LINE RAILROAD ASSOCIATION.**—J. H. Hunt, Tower Bldg., Washington, D. C. Annual meeting, September 29-30, 1941, Hotel Morrison, Chicago, Ill.  
**AMERICAN SOCIETY OF MECHANICAL ENGINEERS.**—C. E. Davies, 29 W. 39th St., New York, N. Y.  
**Railroad Division.**—C. L. Combes, *Railway Age*, 30 Church St., New York, N. Y.  
**AMERICAN TRANSIT ASSOCIATION.**—Guy C. Hecker, 292 Madison Ave., New York, N. Y. Annual meeting, September 29-October 2, 1941, Chalfonte-Haddon Hall, Atlantic City, N. J.  
**AMERICAN WOOD PRESERVERS' ASSOCIATION.**—H. L. Dawson, 1427 Eve St., N. W., Washington, D. C. Annual meeting January 27-29, 1942, Nicollet Hotel, Minneapolis, Minn.  
**ASSOCIATION OF AMERICAN RAILROADS.**—H. J. Forster, Transportation Bldg., Washington, D. C.  
**Operations and Maintenance Department.**—Charles H. Buford, Vice-President, Transportation Bldg., Washington, D. C.  
**Operating-Transportation Division.**—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.  
**Operating Section.**—J. C. Caviston, 30 Vesey St., New York, N. Y.  
**Transportation Section.**—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.  
**Fire Protection and Insurance Section.**—W. F. Steffens, New York Central, Room 3317, 230 Park Avenue, New York, N. Y. Annual meeting, October 14-15, 1941, Congress Hotel, Chicago, Ill.  
**Freight Station Section.**—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.  
**Medical and Surgical Section.**—J. C. Caviston, 30 Vesey St., New York, N. Y.  
**Protective Section.**—J. C. Caviston, 30 Vesey St., New York, N. Y.  
**Safety Section.**—J. C. Caviston, 30 Vesey St., New York, N. Y.  
**Telegraph and Telephone Section.**—W. A. Fairbanks, 30 Vesey St., New York, N. Y. Annual meeting, September 23-25, 1941, Gibson Hotel, Cincinnati, Ohio.  
**Engineering Division.**—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 17-19, 1942, Palmer House, Chicago, Ill.  
**Construction and Maintenance Section.**—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 17-19, 1942, Palmer House, Chicago, Ill.  
**Electrical Section.**—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, October 28, 1941, Hotel Sherman, Chicago, Ill.  
**Signal Section.**—R. H. C. Balliet, 30 Vesey St., New York, N. Y. Annual meeting, September 30-October 2, 1941, Broadmoor Hotel, Colorado Springs, Colo.  
**Mechanical Division.**—Arthur C. Browning, 59 E. Van Buren St., Chicago, Ill.  
**Electrical Section.**—J. A. Andreucetti, 59 E. Van Buren St., Chicago, Ill. Annual meeting, October 28-30, 1941, Hotel Sherman, Chicago, Ill.  
**Purchases and Stores Division.**—W. I. Farrell, Transportation Bldg., Washington, D. C.  
**Freight Claim Division.**—Lewis Pilcher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, 1942, Chicago, Ill.  
**Motor Transport Division.**—George M. Campbell, Transportation Bldg., Washington, D. C.  
**Car-Service Division.**—E. W. Coughlin, Transportation Bldg., Washington, D. C.  
**Finance, Accounting, Taxation and Valuation Department.**—E. H. Runkell, Vice-President, Transportation Bldg., Washington, D. C.  
**Accounting Division.**—E. R. Ford, Transportation Bldg., Washington, D. C.  
**Treasury Division.**—E. R. Ford, Transportation Bldg., Washington, D. C. Annual meeting, September 24-26, 1941, Broadmoor Hotel, Colorado Springs, Colo.  
**Traffic Department.**—A. F. Cleveland, Vice-President, Transportation Bldg., Washington, D. C.  
**ASSOCIATION OF RAILWAY CLAIM AGENTS.**—F. L. Johnson, Claim Agent, Alton R. R., 340 W. Harrison St., Chicago, Ill. Annual meeting, 1942, Buffalo, N. Y.  
**BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.**—R. Y. Barham, Armco Railroad Sales Company, 310 S. Michigan Ave., Chicago, Ill. Exhibit in connection with American Railway Bridge and Building Association Convention, October 14-16, 1941, Hotel Stevens, Chicago, Ill.  
**CANADIAN RAILWAY CLUB.**—C. R. Crook, 4415 Marcell Ave., N. D. G., Montreal, Que. Reg-

ular meetings, second Monday of each month except June, July and August, Windsor Hotel, Montreal, Que.  
**CAR DEPARTMENT ASSOCIATION OF ST. LOUIS, MO.**—J. J. Sheehan, 1101 Missouri Pacific Bldg., St. Louis, Mo. Regular meetings, third Tuesday of each month, except June, July and August, Hotel De Soto, St. Louis, Mo.  
**CAR DEPARTMENT OFFICERS' ASSOCIATION.**—Frank Kartheiser, Chief Clerk, Mechanical Dept., C. B. & Q., Chicago, Ill. Annual meeting September 23-24, 1941, Hotel Sherman, Chicago, Ill.  
**CAR FOREMEN'S ASSOCIATION OF CHICAGO.**—G. K. Oliver, 8238 S. Campbell Ave., Chicago, Ill. Regular meetings, second Monday of each month, except June, July and August, La Salle Hotel, Chicago, Ill.  
**CENTRAL RAILWAY CLUB OF BUFFALO.**—Mrs. M. D. Reed, 1817 Hotel Statler, McKinley Square, Buffalo, N. Y. Regular meetings, second Thursday of each month, except June, July and August, Hotel Statler, Buffalo, N. Y.  
**EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.**—J. T. Bougher, 424 W. 33rd St. (11th floor), New York, N. Y. Fall meeting, September 9, 1941, Hotel Cleveland, Cleveland, Ohio.  
**LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.**—J. E. Goodwin, Missouri Pacific R. R., No. Little Rock, (P. O. Little Rock), Ark. Annual meeting, September 23-24, 1941, Hotel Sherman, Chicago, Ill.  
**MASTER BOILER MAKERS' ASSOCIATION.**—A. F. Stiglmeier, 29 Parkwood St., Albany, N. Y. Annual meeting, September 23-24, 1941, Hotel Sherman, Chicago, Ill.  
**NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.**—Ben Smart, 7413 New Post Office Bldg., Washington, D. C.  
**NATIONAL RAILWAY APPLIANCE ASSOCIATION.**—C. H. White, Room 1826, 208 S. La Salle St., Chicago, Ill. Exhibit in connection with A. R. E. A. Convention, March 16-19, 1942, International Amphitheatre, Chicago, Ill.  
**NEW ENGLAND RAILROAD CLUB.**—W. E. Cade, Jr., 683 Atlantic Ave., Boston, Mass. Regular meetings, second Tuesday of each month, except June, July, August and September, Hotel Touraine, Boston, Mass.  
**NEW YORK RAILROAD CLUB.**—D. W. Pye, 30 Church St., New York, N. Y. Regular meetings, third Thursday of each month, except June, July, August, September, and December, 29 W. 39th St., New York, N. Y.  
**PACIFIC RAILWAY CLUB.**—William S. Woilner, P. O. Box A, Sausalito, Cal. Regular meetings, second Thursday of each alternate month, at Palace Hotel, San Francisco, and second Friday of each alternate month, at Hotel Hayward, Los Angeles.  
**RAILWAY BUSINESS ASSOCIATION.**—P. H. Middleton, First National Bank Bldg., Chicago, Ill. Annual meeting, November 13, 1941, Hotel Stevens, Chicago, Ill.  
**RAILWAY CLUB OF PITTSBURGH.**—J. D. Conway, 1647 Oliver Bldg., Pittsburgh, Pa. Regular meetings, fourth Thursday of each month, except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.  
**RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.**—J. McC. Price, Allen-Bradley Company, 600 W. Jackson Blvd., Chicago, Ill. Annual meeting and exhibit, October 28-30, 1941, Hotel Sherman, Chicago, Ill.  
**RAILWAY FUEL AND TRAVELING ENGINEERS ASSOCIATION.**—T. Duff Smith, Room 811, Utilities Bldg., 327 S. La Salle St., Chicago, Ill. Annual meeting, September 23-24, 1941, Hotel Sherman, Chicago, Ill.  
**RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.**—J. D. Conway, 1647 Oliver Bldg., Pittsburgh, Pa.  
**RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.**—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with A. A. R. Section of A. A. R.  
**RAILWAY TIE ASSOCIATION.**—Roy M. Edmonds, 903 Syndicate Trust Bldg., St. Louis, Mo.  
**ROADMASTERS' AND MAINTENANCE OF WAY ASSOCIATION.**—F. O. Whiteman, Room 332, Dearborn Station, Chicago, Ill. Annual meeting, September 16-18, 1941, Hotel Stevens, Chicago, Ill.  
**SIGNAL APPLIANCE ASSOCIATION.**—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with A. A. R. Signal Section.  
**SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.**—A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.  
**SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.**—D. W. Brantley, C. of Ga. Ry., Savannah, Ga.  
**TORONTO RAILWAY CLUB.**—D. M. George, P. O. Box 8, Terminal "A," Toronto, Ont. Regular meetings, fourth Monday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.  
**TRACK SUPPLY ASSOCIATION.**—Lewis Thomas, Q. and C. Company, 59 E. Van Buren St., Chicago, Ill. Exhibit in connection with Roadmasters and Maintenance of Way Association



Convention, September 15-18, 1941, Hotel Stevens, Chicago, Ill.  
**UNITED ASSOCIATIONS OF RAILROAD VETERANS.**—Roy E. Collins, 112 Hatfield Place, Port Richmond, Staten Island, N. Y. Annual meeting, October 11-12, 1941, Cleveland, Ohio.  
**WESTERN RAILWAY CLUB.**—E. E. Thulin (Executive Secretary) Earl Thulin Company, 122 S. Michigan Ave., Chicago, Ill. Regular meetings, third Monday of each month, except June, July, August and September, Hotel Sherman, Chicago, Ill.

## Supply Trade

**C. A. Church** has been placed in charge of advertising and sales promotion for the transportation department of the **General Electric Company** at Erie, Pa., to succeed **W. D. Bearce**, who is now Erie contact for the federal and marine depart-



C. A. Church

ment. Mr. Church graduated from the University of Colorado in 1932 and entered the test course of the General Electric Company at Schenectady, N. Y., in 1934. In 1935 he joined the market research division of the publicity department and a year later transferred to the industrial division of that department, where he was engaged in the advertising and sales promotion of induction motors and electric heating equipment. He transferred to the transportation department at Erie in March, 1941.

## OBITUARY

**John Morse**, assistant manager of the San Francisco, Cal., branch of Fairbanks, Morse & Co., Chicago, was killed on August 22, when the automobile in which he was a passenger collided with a bus on the approach of the Golden Gate bridge during a fog.

**Henry De Forrest Madden**, general manager of the Bloomfield, N. J., plant of the **Westinghouse Electric & Manufacturing Co.**, died September 1 at his summer home in Brielle, N. J. He was 61 years of age. Mr. Madden had been associated with the Westinghouse company for 38 years.

## Equipment and Supplies

### Equipment Orders Experience Lull

Buying wave eases up; but inactivity is expected to be only temporary

The wave of heavy railway equipment buying rolling on since June of last year in one of the longest periods of concentrated buying in recent times, eased up during August with a sudden virtual cessation of all orders and inquiries. The 2,650 freight cars ordered last month recalled more the duller days of January-May, 1940, during which period a total of 9,268 cars were ordered, than the subsequent 14-month period ended July 31, with its average of over 11,000 cars purchased each month. More reminiscent of the depression years of the early 'Thirties were the 769

cars of this total that were ordered by railroads only, 453 from own shops and 316 from car builders.

Largest single order by a railroad totaled 395 cars, placed by the Southern Pacific with its own shops for 1941 and 1942 delivery. Orders by companies other than railroads comprised chiefly 300 refrigerator cars by the Burlington Refrigerator Express Company and 900 refrigerator cars by the Fruit Growers Express Company, placed respectively with their own shops; and 500 tank cars by the U. S. War Department and 100 tank cars by the E. I. du Pont de Nemours & Co. A comparison of railway equipment purchases for domestic service as reported in the *Railway Age* during August with orders placed in the preceding month of July and the corresponding month of last year follows:

	AUGUST ORDERS COMPARED		
	August 1941	July 1941	August 1940
Locomotives:			
Steam .....	2	79	9
Diesel-electric .....	99	99	37
Electric .....	..	..	9
Total locos. ....	101	178	55
Freight cars .....	2,650	10,889	5,111
Passenger cars .....	2	174	81

For Diesel-electric locomotives only were

### Domestic Equipment Orders Reported in Issues of the Railway Age in August 1941 (Excluding August 2)

#### LOCOMOTIVES

Date	Name of Company	No.	Type	Builder
Aug. 9	Philadelphia, Bethlehem & New England .....	1	Diesel-electric Sw.	Electro-Motive Corp.
Aug. 9	Louisville & Nashville .....	8	Diesel-electric Pass.	Electro-Motive Corp.
Aug. 9	Pennsylvania .....	1	Steam Turbine	Baldwin Locomotive Works
Aug. 9	Central of New Jersey .....	1	Steam Frt.	Company Shops
Aug. 9	Wabash .....	4	Diesel-electric Sw.	Electro-Motive Corp.
Aug. 16	Chicago, Milwaukee, St. Paul & Pacific .....	4	Diesel-electric Sw.	Baldwin Locomotive Works
Aug. 16	U. S. War Dept. ....	2	Diesel-electric Sw.	American Locomotive Co.
Aug. 23	Belt Railway of Chicago .....	1	Diesel-electric Sw.	Electro-Motive Corp.
Aug. 23	Union Pacific .....	2	Diesel-electric Sw.	Baldwin Locomotive Works
Aug. 23	Atchison, Topeka & Santa Fe .....	1	Diesel-electric Sw.	Electro-Motive Corp.
Aug. 23	Bethlehem Steel Co. ....	10	Gasoline-mechanical Sw.	Whitcomb Locomotive Co.
Aug. 23	U. S. War Dept. ....	2	Diesel-electric Sw.	Whitcomb Locomotive Co.
Aug. 23	Sheffield Steel Corp. ....	1	Diesel-electric Sw.	General Electric Co.
Aug. 23	U. S. War Dept. ....	1	Diesel-electric Sw.	Whitcomb Locomotive Co.
Aug. 23	Westinghouse Electric & Mfg. Co. ....	5	Gasoline-mechanical Sw.	Davenport Besler Corp.
Aug. 30	Chicago & North Western .....	5	Gasoline-mechanical Sw.	Vulcan Iron Works
Aug. 30	U. S. War Dept. ....	5	Gasoline-mechanical Sw.	

#### FREIGHT CARS

Aug. 9	Atlantic Coast Line .....	30	Auto-box	Pullman-Standard
Aug. 9	Burlington Refrigerator Express Co. (C. B. & Q. subsidiary) .....	300	Refrigerator	Company Shops
Aug. 9	Fruit Growers' Express Co. ....	900	Refrigerator	Company Shops
Aug. 16	U. S. War Dept. ....	4	Dump	Austin-Western
Aug. 16	E. I. Du Pont de Nemours Co. ....	500	Tank	General American
Aug. 16	U. S. War Dept. ....	100	Tank	American Car & Foundry Co.
Aug. 16	U. S. War Dept. ....	29	Fire-control	Greenville Steel Car
Aug. 23	U. S. Army Dept. ....	3	Tank	General American
Aug. 23	Atchison, Topeka & Santa Fe .....	200	Tank	General American
Aug. 23	General American Transportation Corp. ....	75	Hopper	General American
Aug. 23	Southern Pacific .....	25	Tank	General American
Aug. 23	Reading .....	130	Flat	Company Shops
Aug. 23	Southern .....	10	Depressed Center Flat	Company Shops
Aug. 30	Reading .....	90	DE Gondola	Company Shops
Aug. 30	Southern .....	165	Caboose	Company Shops
Aug. 30	Michigan Lime & Chemical Co. ....	58	Caboose	Company Shops
Aug. 30	Michigan Lime & Chemical Co. ....	11	Box	Pullman-Standard
Aug. 30	Michigan Lime & Chemical Co. ....	20	Dump	Austin-Western

#### PASSENGER-TRAIN CARS

Aug. 16	U. S. War Dept. ....	2	Hospital	Haffner-Thrall
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orders in August maintained at the level of preceding months. And here was featured last month the largest single order in the history of this equipment, namely, by the Atchison, Topeka & Santa Fe for 15 freight locomotives of 5,400-hp. each, making a total of 20 such Diesel freight units with a combined total of 108,000 hp., recently delivered or on order for this road. Also noteworthy last month was the purchase of eight Diesel passenger locomotives of 4,000-hp. each by the Louisville & Nashville and 25 Diesel units of 1,000-hp. each by the Union Pacific. In all, 66 units of the total of 99 Diesel locomotives ordered in August were purchased by railroads, including 15 of 5,400-hp., eight of 4,000-hp., 29 of 1,000-hp., 12 of 600 or 660-hp., and two of less than 600-hp. Of the remaining 33 Diesel locomotives ordered, all of less than 600-hp., 25 were placed by the United States War Department and eight by industrial companies.

Volume of equipment orders placed during the first eight months of this year and comparison with the corresponding eight months of last year is shown hereunder:

ORDERS—FIRST EIGHT MONTHS	First eight months		
	1941	1940	Increase
Locomotives:			
Steam .....	289	138	151
Diesel-electric ....	644	277	367
Electric .....	26	11	15
Total locos. ....	959	426	533
Freight cars .....	105,598	29,033	76,565
Passenger cars .....	618	215	403

As notable as the cessation of orders last month was the continued absence of new inquiries for equipment, which has been apparent since early July. During the month not a single inquiry of significant size was reported, indicating continuance, for the immediate future at least, of the current inactivity. Still unordered remained the only large inquiry carried over from July, namely, by the Missouri-Pacific for 2,850 cars.

Concurrent with the decline in purchases has been a steady reduction in the large backlog of orders on builders' books, and a consequent availability of earlier delivery dates for newly ordered equipment. One of the causes of the present falling off in orders, therefore, gradually eliminates itself, and the industry's expectations that the carriers will re-enter the market in large volume in the fall and winter months remains strong.

### FREIGHT CARS

THE MISSOURI & ARKANSAS has cancelled its order for 100 40½-ft., 50-ton box cars placed with the American Car & Foundry Co., which order was reported in the *Railway Age* of July 26.

THE AMERICAN CAR & FOUNDRY COMPANY has been authorized by the Interstate Commerce Commission in an August 19 decision by Commissioner Johnson, to construct five riveted aluminum alloy tank cars for experimental service in the transportation of ninety-five per cent nitric acid.

THE MISSOURI PACIFIC has ordered for

the Missouri Pacific, the Gulf Coast Lines, the International-Great Northern and the Missouri-Illinois, 2,850 freight cars, as follows:

1,200	50-ton, 40½-ft. steel box—American Car and Foundry Company.
250	50-ton, 50½-ft. steel box—American Car and Foundry Company.
50	50-ton, 35½-ft. covered hopper—American Car and Foundry Company.
50	70-ton, 65-ft. mill-type drop end coal—Mt. Vernon Car Manufacturing Company.
500	70-ton, 50-ft. hopper—Pullman-Standard Car Manufacturing Company.
650	50-ton, 45-ft. steel gondola—Pressed Steel Car Company.
150	50-ton, 50-ft. flat—Bethlehem Steel Company.

Inquiry for this equipment was reported in the *Railway Age* of July 19. Earlier in the year this company ordered 2,572 cars.

### LOCOMOTIVES

THE SOUTHERN PACIFIC is reported to have placed orders for a total of 20 Diesel-electric switching locomotives of 1,000-hp. each, allocating 15 units to the American Locomotive Company and five units to the Baldwin Locomotive Works.

THE WHITCOMB LOCOMOTIVE COMPANY has received orders for a total of 19 Diesel-hydraulic locomotives from industrial companies as follows:

Company	Wt.		
	No. (tons)	Hp.	
Arundel Corp. & Con. Engrg. Co.	10	30	193
Republic Mining & Mfg. Co.	3	20	193
Alabama Drydock & Shipbldg. Co.	2	25	193
Aluminum Ore Co.	1	20	193
Louisiana Shipyards, Inc.	1	20	193
J. E. Baker Company	1	20	200
General Supply Co. of Canada	1	30	190

### IRON AND STEEL

THE COMMISSIONER OF SUBWAYS AND SUPER HIGHWAYS OF CHICAGO is asking for bids, until September 11, on 2,981 tons of rails for the State street section of the subway now under construction. Included are 1,481 tons of 100-lb. traffic rails, 175 tons of 90 lb. approach rails, 200 tons of 90 lb. guard rails and 1,125 tons of 144 lb. contact rails.

### SIGNALING

THE VIRGINIAN has placed an order with the General Railway Signal Company covering material for a centralized traffic control system between Virwest and Page, W. Va. The control machine, located at Mullens, W. Va., will control the traffic over 48.2 miles of single track. The order, in addition to the code equipment, includes 16 Model 5D dual-control low-voltage switch machines, 5 outlying switch locks, 46 switch circuit controllers, 112 type SA searchlight signals, 9 type W fixed signals, relays of various types, and instrument cases.

### MOTOR VEHICLES

THE DENVER, COLORADO SPRINGS & PUEBLO MOTORWAY, INC., a joint subsidiary of the Chicago, Burlington & Quincy, and the Denver & Rio Grande Western, has ordered two air-conditioned motor coaches from the a. c. f. Motors Company.

## Financial

CHICAGO & EASTERN ILLINOIS.—*Guaranty of Bonds*.—This company, which was recently formed as a result of the reorganization of the Chicago & Eastern Illinois Railway Company under section 77 of the Bankruptcy Act, has been authorized by Division 4 of the Interstate Commerce Commission to assume liability as guarantor for one-sixteenth of the interest and sinking fund installments on \$10,610,000 of Terminal Railroad Association of St. Louis general mortgage four per cent bonds, which had been guaranteed by the old company.

CHICAGO & NORTH WESTERN.—*Reorganization managers appointed*.—Frederick W. Walker, vice-president of the North Western Mutual Life Insurance Company, Milwaukee, Wis., Henry Bruere, president of the Bowery Savings Bank, New York, and Russell L. Snodgrass, assistant general counsel of the Reconstruction Finance Corporation, Washington, D. C., have been appointed reorganization managers for the Chicago & North Western. They will be charged with the task of placing the plan of reorganization in effect and their duties will include the drafting of new mortgages and securities and transferring the title to the properties. At the present time an appeal of the reorganization plan is pending before the United States Circuit Court of Appeals.

CHICAGO, INDIANAPOLIS & LOUISVILLE.—*Reorganization*.—A special committee, appointed last Fall to study the value of the proprietary interest and leasehold rights of this company in its joint terminal facilities in Chicago, Louisville, and Indianapolis, has found that these rights "are of substantial value" and should be retained. The committee was appointed to determine the value of the leases as a part of the current reorganization proceedings under section 77 of the Bankruptcy Act, and consisted of R. A. Porterfield, engineer-examiner of the Interstate Commerce Commission; L. L. Morton, assistant vice-president of the Louisville & Nashville; J. S. Tassin, general statistician of the Southern; and R. G. Streit, comptroller of the Monon.

CHICAGO, ROCK ISLAND & PACIFIC.—*Date Set for Filing Objections to Reorganization Plan*.—Federal Judge Michael L. Igoe has set September 30 as the date by which objections to the plan of reorganization must be filed, and briefs in support of such objections must be filed by October 18.

COLORADO & SOUTHERN.—*Abandonment*.—This company has asked the Interstate Commerce Commission for authority to abandon its narrow-gauge line extending from Waterton, Colo., to Silica, 3.9 miles.

ERIE.—*Correction*.—An item appearing in the *Railway Age* for August 30, page 362, concerning a prospective issue of refunding bonds by this road, is in error. No such issue is contemplated.

KALAMAZOO, LAKE SHORE & CHICAGO.—*Deficit Status*.—Division 4 of the Inter-



state Commerce Commission has found that this company did not sustain a decrease in its net railway operating income while under private operation in the Federal control period and is not entitled to the benefits of section 204 of the Transportation Act of 1920, as amended January 7, 1941.

**NEW YORK, CHICAGO & ST. LOUIS.—Equipment Trust Certificates.**—This company has asked the Interstate Commerce Commission for authority to assume liability for \$5,800,000 of serial equipment trust certificates, bearing interest at not more than three per cent and maturing in 10 equal annual installments of \$580,000 on September 1 in each of the years from 1942 to 1951, inclusive. The proceeds will be used as part of the purchase price of new equipment costing a total of \$6,589,128, and consisting of 15 class S-1, 2-8-4 freight locomotives; 250 all-steel, 50-ton hopper cars; 900 all-steel, 50-ton box cars; 250 50-ton gondola cars; and 100 all-steel, 50-ton automobile cars.

**NEW YORK, CHICAGO & ST. LOUIS.—L. E. & W. Bonds.**—This road has purchased \$3,566,000 of second mortgage 5s of the absorbed Lake Erie & Western from Smith, Barney & Co., New York, it announced on August 28. Purchase was in accordance with an arrangement between the road and the investment firm whereby the latter would acquire the bonds from their original holders prior to their maturity on July 1, 1941, at par and accrued interest. (See *Railway Age*, June 21, page 1135.) Following their acquisition by the firm the maturity date was extended to 1951 and the securities re-sold to the parent railroad. It was reported that the holders of approximately \$59,000 of the issue did not tender their bonds for re-purchase.

**NEW YORK, NEW HAVEN & HARTFORD.—Reorganization Expenses.**—Division 4 of the Interstate Commerce Commission has reduced from \$2,348,363 to \$1,107,299 the total of expenses claimed by all parties participating in the reorganization of this company under section 77 of the Bankruptcy Act. The largest single reduction was in the requested figure of \$200,000 for the law firm of White & Case, counsel for the Bankers Trust Company, trustee under the New Haven first and refunding mortgage, which was pared down to \$40,000; while the Commonwealth of Massachusetts asked for \$47,218 as its expenses for participating in the reorganization, but would receive nothing under Division 4's allocation.

**NORTHERN PACIFIC.—Purchase.**—This company has been authorized by Division 4 of the Interstate Commerce Commission to purchase the properties of the Minnesota & International, including control of the Big Fork & Northern. The purchase will be made through the acquisition of the stock of the two companies, and the report states that no changes will be made in the operation of the line.

**PITTSBURGH & WEST VIRGINIA-MONTGOMERY.—Operation.**—Division 4 of the Interstate Commerce Commission has authorized the Montour to operate over the Pittsburgh & West Virginia's Mifflin branch

extending from Salida, Pa., easterly to the end of the line near Mifflin Junction, 2.9 miles. At the same time Division 4 has permitted the P. & W. V. to operate over the line of the Montour from Salida, Pa., westerly to Coverdale, 3.3 miles.

**ST. LOUIS-SAN FRANCISCO.—Reorganization Expenses.**—Division 4 of the Interstate Commerce Commission has reduced from \$1,253,656 to \$617,750 the total of expenses claimed by all parties participating in the reorganization of this company under section 77 of the Bankruptcy Act. The largest single reduction was in the requested figure of \$91,539 for the law firm of Jack Lewis Kraus, II, counsel for the holders of \$3,500 of prior-liens bonds, which was pared down to \$5,000.

**ST. LOUIS SOUTHWESTERN.—Reorganization.**—This company has asked the Interstate Commerce Commission to amend its final plan of reorganization, details of which were given in the *Railway Age* of July 19, page 124, so as to permit the preferred and common stockholders to share in the assets of the new company. Under the final plan, the equities of both the preferred and common stockholders were found to be without value.

The brief declares that the new capitalization of the company is "inadequate" and that present creditors and stockholders receive "unjust treatment" at the hands of the commission. To rectify this, the debtor company wants the capitalization increased by \$20,000,000 and the preferred and common stockholders, respectively, allocated two-fifths and one-fifth of a share of new common for each share of the present preferred and common now held.

At the same time the Southern Pacific has asked the commission to increase the total capitalization of the Cotton Belt to not less than \$100,000,000, or at least to a point which will permit the issuance to stockholders of new common stock of a par, stated, or assumed value of not less than \$9,086,357. This amount of new stock would consist of not less than 90,864 shares, to be distributed in the ratio of one share of new common for three shares of old preferred and one share of new common for seven shares of old common.

Meanwhile, Walter E. Meyer, a former director of the Cotton Belt, and a large minority stockholder, has requested the commission to reopen the case to permit the introduction of new testimony purporting to show that the Southern Pacific diverted traffic from the Cotton Belt, to the detriment of the latter's stockholders.

**SPOKANE INTERNATIONAL.—Reorganization, Acquisition, and Issuance of Securities.**—The Spokane International Railroad, a newly-organized corporation, has been authorized by Division 4 of the Interstate Commerce Commission to acquire and operate the railroad and other properties of the Spokane International Railway and the Coeur d'Alene and Pend d'Oreille in effecting a plan of reorganization for these companies which has already been approved by the commission and the federal district court in Spokane, Wash.

Also, in connection with the reorganization, the new company was authorized to issue (a) \$2,846,400 of income mortgage

4½ per cent bonds and (b) 28,464 shares of common stock without par value, including five shares heretofore subscribed for (to be deposited under an escrow agreement).

**TENNESSEE CENTRAL.—R. F. C. Loan.**—Acting on the request of this company, Division 4 of the Interstate Commerce Commission has dismissed its request for authority to borrow \$180,000 from the Reconstruction Finance Corporation.

**TIONESTA VALLEY.—Abandonment.**—This company has asked the Interstate Commerce Commission for authority to abandon a line extending from Sheffield, Pa., to Sheffield Junction, 14 miles.

### Dividends Declared

Lackawanna RR of New Jersey.—\$1.00, quarterly, payable October 1 to holders of record September 5.

New York, Lackawanna & Western.—\$1.25, quarterly, payable October 1 to holders of record September 5.

### Average Prices of Stocks and Bonds

	Sept. 2	Last week	Last year
Average price of 20 representative railway stocks..	30.67	30.81	29.60
Average price of 20 representative railway bonds..	65.60	64.53	58.59

## Construction

**ATCHISON, TOPEKA & SANTA FE.**—A contract has been awarded the Hearn Construction Company, Albuquerque, N. M., for the construction of a freight depot and office structure at El Paso, Tex. The building will occupy an area 218 ft. by 42 ft. and will be constructed of brick on a concrete foundation. The entire building will be stuccoed and finished in Spanish architecture. A separate contract for the plumbing and heating work was awarded the Johnson Plumbing & Heating Co., Wichita, Kan.

**CENTRAL OF NEW JERSEY.**—This company has awarded a contract to the Ell-Dorer Contracting Co. of Irvington, N. J., for a grade crossing elimination at the Calco Chemical Plant, Bound Brook, N. J., at estimated cost of \$200,000.

**ILLINOIS CENTRAL.**—Contracts have been awarded for repairs to the roundhouse and other shop buildings and for the construction of an inspection pit for Diesel trains at Waterloo, Iowa.

**NEW YORK CENTRAL.**—The United States War Department has awarded a contract to this road for architectural and engineering services in connection with the construction of a \$5,044,600 general "depot" and regulating station at Voorheesville, N. Y. The "depot" will provide nearly 2,000,000 ft. of open storage space.

**PANHANDLE & SANTA FE.**—The U. S. Engineers have awarded a contract amounting to \$30,345 to the Panhandle & Santa Fe for the construction of a spur track 1½ miles long from Hurlwood, Tex., to the Advanced Twin Engine School near Lubbock, Tex.

## Railway Officers

### EXECUTIVE

**L. V. Porter**, assistant vice-president and comptroller of the New York Central system, with headquarters at New York, has been promoted to vice-president and comptroller, succeeding **W. C. Wishart**, vice-president, accounting, who retired on August 31, in conformity with the pension regulations of the company. **G. H. Albach**, auditor station accounts and overcharge claims, has been appointed assistant comptroller, with headquarters as before at New York. **W. H. LeValley** has been appointed auditor station accounts and overcharge claims, succeeding Mr. Albach.

**William A. Benson**, assistant to the accounting vice-president of the Railway Express Agency, with headquarters at New York, has been promoted to vice-president—accounting, with the same headquarters, succeeding **Charles A. Lutz**, who has retired after more than 20 years in that position. Mr. Benson was born on July 3, 1887, at Highwood, Ill., and attended high school and special courses at Northwestern University. He entered railroad service in 1903 as telegraph operator on the Chicago & North Western, subsequently serving as agent and chief clerk in the accounting department of the Chicago & Milwaukee Electric railway. In 1911 he became general bookkeeper for the Chicago Great Western and from 1912 to 1918 served as chief clerk and efficiency accountant for Wells Fargo & Co. At the



William A. Benson

time of merger of the express companies into a single operating organization, the American Railway Express, in July, 1918, Mr. Benson was appointed assistant to the accounting vice-president. On March 1, 1929, when Railway Express Agency took over the operations, he became executive vice-president at New York. In March, 1934, he became operating vice-president in the Western departments at San Francisco, Cal., and in July, 1935, he returned to New York as assistant to the accounting vice-

president, the position he held until his recent promotion.

Mr. Lutz was born on August 6, 1871, at Loogootee, Ill., and attended grammar school and Weaver business college at



Charles A. Lutz

Louisville, Ky. He entered railroad service in 1887 as station agent on the Louisville & Nashville, serving successively with that road as clerk and bookkeeper, general bookkeeper in comptroller's office and assistant comptroller. From 1908 to 1913, Mr. Lutz served as chief examiner of accounts for the Interstate Commerce Commission, becoming comptroller for the United States Express Company in 1913. During 1915 and 1916 Mr. Lutz conducted a special accounting investigation for the Massachusetts Board of Gas & Electric Light Commissioners and in the latter year became accountant for the American International Corporation and assistant secretary for the Pacific Mail Steamship Company. From 1916 to 1918 he was comptroller of the Winchester Repeating Arms Company. He was appointed treasurer of the United States Railroad Administration in 1918 and continued in that position until after the World War Emergency ended. Mr. Lutz re-entered the express service in 1920, when he was appointed vice-president in charge of accounts for the American Railway Express, continuing in that position when the Railway Express Agency took over operations in 1929.

### FINANCIAL, LEGAL AND ACCOUNTING

**Richard V. Onslow**, auditor of freight overcharge claims of the Northern Pacific, with headquarters at St. Paul, Minn., retired on September 1.

**R. S. Duncan**, land appraiser of the Baltimore & Ohio, has been appointed assistant real estate agent, with headquarters as before at Baltimore, Md.

**Cassius M. Clay**, assistant general counsel, Reconstruction Finance Corporation, Washington, D. C., has been appointed general solicitor of the Baltimore & Ohio, with headquarters at Baltimore, Md.

**Horace L. Walker**, general attorney, Chesapeake & Ohio, with headquarters at Richmond, Va., has been appointed acting general solicitor, succeeding **M. Carter**

**Hall**, whose death on August 11 was reported in the *Railway Age* of August 16.

### OPERATING

**Frank Gordon Cook**, whose promotion to superintendent of the Idaho division of the Northern Pacific, with headquarters at Spokane, Wash., was reported in the *Railway Age* of August 23, was born at Concord, N. H., on August 13, 1885, and graduated from Dartmouth College in 1908 and the Thayer School of Civil Engineering in 1910. He entered railway service in July, 1904, with the Boston & Maine and on May 1, 1910, he went with the Northern Pacific as a rodman at Jamestown, N. D., later being promoted to instrumentman and assistant engineer at that point. On May 1, 1915, he was appointed roadmaster on the Dakota division at Mandan, N. D., and on February 15, 1917, he was transferred to the Rocky Mountain division at Helena, Mont. Mr. Cook was advanced to division roadmaster of the Yellowstone division with headquarters at Glendive, Mont., on January 1, 1927, and



Frank Gordon Cook

on May 1, 1929, he was promoted to trainmaster-roadmaster on the Rocky Mountain division at Wallace, Idaho, and later transferred to Missoula, Mont. On February 1, 1935, he was appointed trainmaster on the Tacoma division at Auburn, Wash., and on June 1, 1937, he was promoted to assistant superintendent on the Idaho division, with headquarters at Spokane, which position he held until his recent promotion, effective August 1.

**Clark T. Williamson**, general manager of the Railway Express Agency, with headquarters at Buffalo, N. Y., and a member of its Committee on Wages and Working Conditions, retired on August 31, after 51 years of service. **R. P. Woodman**, superintendent of organization, has been appointed assistant to vice-president, succeeding **W. G. White**, who has been appointed superintendent of the Philadelphia division. Mr. White succeeds **F. A. VanDenbergh**, who has been transferred to the Maryland-Pennsylvania division at Baltimore, Md., succeeding **P. T. Webber**, who has been transferred to the Southern New England division at Providence, R. I. Mr. Webber succeeds **C. J. Leary**, who has been appointed assistant to vice-president at New York, taking over



the duties formerly handled by Mr. Williamson. **J. P. Downey**, superintendent of the Buffalo-Erie division at Buffalo, has been appointed superintendent of organization, vice-president's office, succeeding Mr. Woodman. **Charles Benton**, superintendent of the Eastern New York division at Albany, N. Y., has been appointed superintendent of organization, succeeding **J. J. McClory**, who has been appointed superintendent of the Susquehanna division at Scranton, Pa. Mr. McClory succeeds **R. L. Kinsman**, who has been transferred to Buffalo to replace Mr. Downey. **W. J. O'Maley**, superintendent of the North Shore-Maine division at Boston, Mass., has been transferred to Albany, succeeding Mr. Benton. **W. H. Hoffman**, assistant superintendent, Vehicle department, New York City department, has been promoted to superintendent of the North Shore-Maine division at Boston, succeeding Mr. O'Maley.

The title of **L. R. Keller**, assistant to general superintendent of the Western Maryland, with headquarters at Baltimore, Md., has been changed to assistant to general manager.

**W. S. Hunter**, chief clerk to the superintendent on the Chicago Great Western at Des Moines, Iowa, has been promoted to trainmaster, with the same headquarters, succeeding **H. Boller**, who has been transferred to St. Paul, Minn. Mr. Boller replaces **T. M. Mickelson**, who has been transferred to Clarion, Iowa, relieving **H. R. Halverson**, who has been transferred to Chicago. Mr. Halverson succeeds **W. L. Smith**, who has been returned to train service at his own request.

### TRAFFIC

**Frank P. Raulston**, freight traffic agent for the Nashville, Chattanooga & St. Louis at Knoxville, Tenn., has been promoted to general agent-freight and passenger at that point.

**C. D. Thomas**, assistant freight traffic manager of the Southern, with headquarters at Atlanta, Ga., has been appointed freight traffic manager, with the same headquarters.

**Elmer A. Schier**, general traffic manager of the Pittsburgh & West Virginia, with headquarters at Pittsburgh, Pa., has resigned to become Eastern traffic manager of the Inter-State Motor Freight system, with headquarters at New York, effective August 29.

**C. C. Hart**, commercial agent on the Missouri Pacific at Memphis, Tenn., has been promoted to general agent at Oklahoma City, Okla., succeeding **J. J. Mulholland**, who has been transferred to Indianapolis, Ind. Mr. Mulholland relieves **J. H. Lang**, who has been transferred to Dallas, Tex., replacing **L. D. Nicholson**, deceased.

**J. A. Prince**, district freight agent, Pennsylvania, with headquarters at Milwaukee, Wis., has been transferred to Altoona, Pa., succeeding **N. B. Fagan**, whose appointment as division freight agent at Camden, N. J., was reported in the *Railway Age* of August 16. **J. A.**

**Sladen** has been appointed district freight agent at Elmira, N. Y., succeeding **K. G. Crowl**, who has been transferred to New Haven, Conn., as reported in the *Railway Age* of August 16.

**J. O. McIllyar**, division freight and passenger agent on the Chicago, Milwaukee, St. Paul & Pacific at Miles City, Mont., has been promoted to assistant to the western traffic manager, a newly created position, with headquarters at Seattle, Wash. **C. S. Winship**, division freight and passenger agent at Great Falls, Mont., has been transferred to Miles City, succeeding Mr. McIllyar; and **H. B. Brownell** has been appointed division freight and passenger agent at Great Falls, relieving Mr. Winship.

**C. W. Nickless**, freight and passenger agent of the Norfolk & Western, with headquarters at Washington, D. C., has been appointed general agent, with the same headquarters. The position of freight and passenger agent at Washington has been abolished. **H. J. Fink**, commercial agent at Philadelphia, Pa., has been appointed general agent, with the same headquarters. **H. C. Crueger**, commercial agent, has been appointed general agent, with headquarters as before at Baltimore, Md. The positions of commercial agent at Philadelphia and Baltimore have been abolished.

**Harvey C. Duvall**, assistant general passenger agent for the Chicago & North Western at Chicago, has been promoted to general passenger agent, with the same headquarters, succeeding **George L. Helmstader**, whose death on July 22 was reported in the *Railway Age* of August 2, and **Norman A. Hersether**, assistant general passenger agent at the passenger station in Chicago, has been transferred to the general offices in Chicago, succeeding Mr. Duvall. **Noble M. Kean**, city passenger agent at Chicago, has been advanced to assistant general passenger agent, replacing Mr. Hersether.

Mr. Duvall was born at Pensaukee, Wis., on May 8, 1894, and attended the University of Chicago. He entered railway service in June, 1913, as a ticket clerk for

served overseas. He returned to the North Western after the war and in October, 1919, he was appointed ticket clerk at Marinette, Wis. In March, 1926, he was appointed city ticket agent at Pittsburgh, Pa., and in June, 1928, he was appointed assistant chief clerk in the general passenger department. Mr. Duvall was promoted to assistant general passenger agent in June, 1936, which position he held until his recent promotion, effective September 1.

**William E. Stewart**, general freight agent of the Central of Georgia, with headquarters at Savannah, Ga., has been promoted to freight traffic manager, with the same headquarters. **Charles D. Chancellor**, general freight agent, has been promoted to assistant freight traffic manager, with headquarters as before at Savannah, succeeding **F. C. McConnell**, whose death on August 17 was reported in the *Railway Age* of August 23. **Sidney A. Smith**, assistant general freight agent, has been promoted to assistant to freight traffic manager. **Mark W. Thomas** and **Allen W. Sanders**, assistant general freight agents, have been promoted to general freight agents. **Edward J. McCaffrey** has been appointed assistant general freight agent. The headquarters of all the above are at Savannah.

### ENGINEERING & SIGNALING

**I. S. Raymer**, signal-telegraph engineer of the Pittsburgh & Lake Erie, with headquarters at Pittsburgh, Pa., has re-



Earl F. Brown

tired. **Earl F. Brown** has been appointed signal-electrical engineer, succeeding Mr. Raymer. **F. B. McConnel** has been appointed assistant signal-electrical engineer, with headquarters at Pittsburgh, Pa.

Mr. Raymer was born at Markham, Ont., on October 28, 1873, and entered railway service with the Pittsburgh and Lake Erie as a signal inspector at Beaver, Pa., on March 1, 1899. He was promoted to assistant signal engineer on December 1, 1906, and to signal engineer on March 1, 1920. Mr. Raymer was promoted to signal-telegraph engineer on April 6, 1933, which position he held at the time of his retirement.

Mr. Brown was born at Duquesne, Pa., on July 8, 1902, and received his B. S. degree in electrical engineering from the Carnegie Institute of Technology in 1924. He entered railway service with the Pitts-



Harvey C. Duvall

the North Western at Norway, Mich., and during the first World War he enlisted with the United States Marine Corps and

burgh & Lake Erie on September 16, 1926, as a junior electrical engineer at Pittsburgh, Pa., and was promoted to operation inspector in the engineering department on November 1, 1927, to electrical foreman on March 1, 1929, and to electrical supervisor on September 1, 1933, which position he held at the time of his recent promotion to signal-electrical engineer.

**Thomas W. Hays**, assistant signal engineer of the Northwestern and South-Central districts of the Union Pacific, whose promotion to signal engineer of the South-Central district, with headquarters at Salt Lake City, Utah, was reported in the *Railway Age* of August 9, was born at Ashland, Neb., on September 7, 1891. Mr. Hays entered railway service with the Union Pacific on October 29, 1912, at Council Bluffs, Iowa, as an interlocking repairman. He was promoted to interlocking foreman, with headquarters at Omaha, Neb., in June, 1914, and to assistant signal supervisor, with the same headquarters, in June, 1920. He was promoted to signal supervisor on the Western division at Green River, Wyo., in December, 1922, and was transferred to the Kansas-Central division in September, 1931. In December, 1932, he was appointed signal supervisor on the Wyoming division, with headquarters at Cheyenne, Wyo. In March, 1941, Mr. Hays was promoted to assistant signal engineer of the Northwestern and South-Central districts, with headquarters at Salt Lake City, which position he held until his recent promotion.

**Robert C. Charlton**, whose promotion to signal engineer of the Northwestern district of the Union Pacific, with headquarters at Portland, Ore., was reported in the *Railway Age* of August 9, was born at San Francisco, Cal., on July 12, 1881, and attended the California School of Me-



Robert C. Charlton

chanical Arts from 1897 to 1901. He entered railway service with the Southern Pacific as a signal apprentice at Ocean View, Cal., on January 2, 1901, and was subsequently promoted to lampman, batteryman and signal man. He was promoted to signal gang foreman early in 1905, on the installation of automatic signals between Gilroy, Cal., and Pajaro, and in June, 1905, he went with the Oregon-

Washington Railroad & Navigation Company (now part of the Union Pacific) as a signal gang foreman. In 1907 Mr. Charlton was appointed general construction foreman and in March, 1908, he was promoted to signal supervisor of the Oregon division, remaining in that capacity until January 1, 1921, when he was promoted to signal engineer of the Oregon-Washington Railroad & Navigation Company. On September 1, 1931, Mr. Charlton was appointed signal supervisor of the Northwestern district of the Union Pacific, which position he held until his recent promotion.

**A. E. Bechtelheimer**, assistant engineer of bridges of the Chicago & North Western, has been promoted to engineer of bridges, with headquarters as before at Chicago, succeeding **Oscar F. Dalstrom**,



A. E. Bechtelheimer

who retired on September 1. **A. R. Harris**, office engineer at Chicago, has been advanced to assistant engineer of bridges, replacing Mr. Bechtelheimer.

Mr. Bechtelheimer was born at Eldena, Ill., on April 4, 1881, and attended Iowa State College and the University of Wisconsin. He entered railway service in October, 1905, as a chainman on the North Western at Boone, Iowa, and in April, 1906, he was promoted to rodman. A year later he was advanced to instrumentman and from June, 1908, to February, 1910, he served as a draftsman and instrumentman. In March, 1912, he was appointed a bridge draftsman, with headquarters at Chicago, and in May, 1913, he was promoted to assistant general bridge inspector, with the same headquarters. Mr. Bechtelheimer was advanced to general bridge inspector in March, 1920, and in December, 1928, he was promoted to assistant engineer of bridges, the position he held until his recent promotion. Mr. Bechtelheimer has been active in the American Railway Bridge and Building Association for many years, and served as president of that organization in 1940.

Mr. Dalstrom was born at Wyand, Ill., on August 15, 1871, and attended Fremont (Neb.) Normal College and Rensselaer Polytechnic Institute, graduating in civil engineering from the latter in 1901. In June, 1901, he became a draftsman in the bridge and construction department of the Pennsylvania Steel Company (now the Bethlehem Steel Company) at Steelton, Pa., later serving as a shop inspector. He

then served successively as a detailer on movable bridges for the Scherzer Rolling Lift Bridge Company; detailer on steel



Oscar F. Dalstrom

structures for the Riverside Bridge Company at Martin's Ferry, Ohio, and detailer and checker on steel bridge plans for the Pennsylvania Steel Company. He entered railway service on June 1, 1906, as a detailer, checker and designer on plans for bridges and other structures for the North Western and four years later he was promoted to chief draftsman in the office of the engineer of bridges. On March 1, 1917, Mr. Dalstrom was promoted to engineer of bridges, the position he held until his retirement. Mr. Dalstrom has been active in the American Railway Engineering Association for many years, and at the present time is chairman of the committee on Iron and Steel Structures of that association.

Mr. Harris was born at Cameron, Mo., on April 26, 1897, and attended the University of Missouri from 1914 to 1918. He entered railway service on March 12, 1923, as a draftsman and designer for the North Western at Chicago and in 1925 he was



Arthur Raymond Harris

promoted to assistant chief draftsman. Mr. Harris was advanced to office engineer in 1939, which position he held until his recent promotion.

**Lloyd T. Casson**, resident engineer of the Terminal Railroad Association of St. Louis, has been promoted to bridge engineer, with headquarters as before at St.



Louis, Mo., succeeding **Walter L. Smith**, who retired on September 1, and **Newel J. Law, Jr.**, assistant engineer, has been appointed assistant bridge engineer.

**Everett E. Earl**, acting division engineer on the Southern Pacific, with headquarters at Los Angeles, Cal., has been promoted to division engineer of the San Joaquin division, with headquarters at Bakersfield, Cal., succeeding **L. E. Peterson**, who has been transferred to the Los Angeles division, with headquarters at Los Angeles, relieving **H. E. Stansbury**, who has been appointed assistant engineer at San Francisco, Cal.

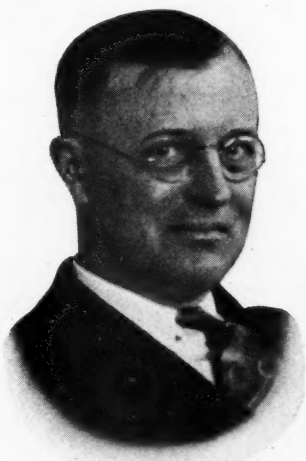
### MECHANICAL

**W. W. Henderson** has been appointed master mechanic of the Hastings and Dakota division of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Aberdeen, S. D., succeeding **J. L. Bossard**, who has been transferred to Savanna, Ill., relieving **Paul L. Mullen**, whose promotion to assistant superintendent of motive power, with headquarters at Milwaukee, was reported in the *Railway Age* of August 30.

**Frank Alt**, general car foreman on the Union Pacific at Cheyenne, Wyo., has been promoted to general car inspector, with the same headquarters.

**W. T. Newell**, supervisor of floating equipment of the Chesapeake & Ohio, has been appointed marine superintendent, with headquarters at Newport News, Va. The position of supervisor of floating equipment has been abolished.

**W. L. Houghton**, whose promotion to assistant superintendent of equipment for the New York Central at Chicago and superintendent of equipment of the Indiana Harbor Belt and the Chicago Junction Railway was reported in the *Railway Age* of August 30, was born at Toledo, Ohio, on October 28, 1891, and entered railway service on August 1, 1908, as an apprentice at the Beech Grove shops of the Cleveland, Cincinnati, Chicago & St. Louis



W. L. Houghton

(Big Four) at Indianapolis, Ind. He was later promoted successively to foreman, piece work inspector and assistant erecting foreman at Bucyrus, Ohio; general

foreman at Stanley, Ohio, and assistant general foreman of the Linndale (Ohio) enginehouse. On August 1, 1939, Mr. Houghton was advanced to master mechanic at Chicago, which position he held until his recent promotion, effective September 1.

**John E. Bjorkholm**, whose promotion to superintendent of motive power of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Milwaukee, Wis., was reported in the *Railway Age* of August 30, was born in Sweden on December 19, 1883, and took a correspondence school course. Before coming to this country he served as a deep sea diver, junior engineer in the submarine service of the Swedish Navy and fireman and junior engineer in the merchant marine. He entered railway service on October 1, 1906, as a fireman on the Milwaukee, later being promoted to engineer and traveling engineer, with headquarters at Milwaukee. On January 10, 1918, he was promoted to division master mechanic of the Chicago Terminal division,



John E. Bjorkholm

with headquarters at Chicago, and on April 1, 1919, Mr. Bjorkholm was advanced to assistant superintendent of motive power, with headquarters at Milwaukee, which position he held until his recent promotion.

**E. M. Wilcox**, whose retirement as assistant superintendent of equipment of the New York Central, Lines West of Buffalo, and the Michigan Central, and superintendent of equipment of the Indiana Harbor Belt and the Chicago Junction Railway, with headquarters at Chicago, was reported in the *Railway Age* of August 30, was born at Buffalo, N. Y., on August 13, 1871, and entered railway service in the mechanical department of the Lehigh Valley in 1892. In 1902 he went with the Lake Shore & Michigan Southern (now part of the New York Central) as assistant foreman at Collinwood, Ohio, and was later promoted successively to general foreman at Nottingham, Ohio, traveling foreman at Buffalo, N. Y., division general foreman, general car foreman at Gibson, Ind., and master car builder of the Indiana Harbor Belt and the Chicago Junction at Gibson. In May, 1932, he was appointed also master car builder for the terminal district of the Michigan Central, and in February, 1933, his jurisdiction was extended to include the Western division of the New York Central, with headquarters

at Chicago. In June, 1933, his jurisdiction was extended to include a portion of the Cleveland, Cincinnati, Chicago & St. Louis (Big Four) and in May, 1934, Mr. Wilcox



E. M. Wilcox

was appointed superintendent of equipment, for the New York Central lines mentioned above, with headquarters at Chicago. On November 1, 1937, the position of superintendent of equipment on the New York Central, Michigan Central and Big Four at Chicago was abolished, and he was appointed assistant superintendent of equipment, with the same headquarters, which position he held until his retirement. Mr. Wilcox has been active in the Car Department Officers Association for many years, serving as a director from 1937 to 1940. He also served as second vice-president of the Western Railway Club during the year 1936-1937. He is the inventor of the car retarder system, now extensively used on hump yards throughout the country. For his work in this development Mr. Wilcox received the Henderson Gold Medal of the Franklin Institute, Philadelphia, Pa., in 1930.

### PURCHASES AND STORES

**J. J. Clark** has been appointed assistant purchasing agent of the Wheeling & Lake Erie, a newly created position, with headquarters at Cleveland, Ohio.

### SPECIAL

**G. F. Doyle** has been appointed chief special agent of the Illinois Central, with headquarters at Chicago, succeeding **T. J. Healy**, who retired on September 1 after more than 41 years service.

### OBITUARY

**Harold L. Engel**, general agent for the Missouri Pacific at Phoenix, Ariz., died at that point on August 28.

**James Sykes**, chief engineer of the Great Western, with headquarters at Loveland, Colo., died at his home there on August 30, following a brief illness.

**J. W. St. Clair**, vice-president and general superintendent of the South Buffalo railway, with headquarters at Lackawanna, N. Y., died on August 26 at the age of 62.

MONTH OF JULY AND \_\_\_\_\_

REVENUES AND EXPENSES OF RAILWAYS										
MONTH OF JULY AND SEVEN MONTHS OF CALENDAR YEAR 1941										
Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net from railway operation	Net railway operating income
		Freight	Passenger	Total (inc. misc.)	Maintenance of way and structures	Traffic equipment	Trans- portation			
Akron, Canton & Youngstown	171 mos.	\$261,632	\$46	\$274,159	\$23,178	\$14,459	\$73,723	59.9	\$109,865	\$35,094
Alton	171 mos.	1,681,362	276	1,763,319	214,814	98,682	475,622	57.8	744,551	224,263
Alton	959 mos.	1,341,656	1,745,228	11,221,831	220,097	257,743	646,736	69.6	544,551	1,018,891
Alton	959 mos.	7,967,455	1,745,228	11,221,831	1,749,636	326,677	4,314,035	73.1	3,018,750	2,305,081
Alton	13,431 mos.	20,711,303	2,350,463	24,402,339	2,300,177	3,649,881	472,337	53.2	11,422,653	6,809,626
Alton	13,431 mos.	100,923,258	12,470,873	121,684,615	15,439,787	23,970,484	3,370,365	69.9	20,674,936	20,345,461
Alton	93 mos.	153,098	209,219	1,344,165	33,085	203,334	8,830	73.1	36,656,833	34,204
Alton	93 mos.	966,151	209,219	1,344,165	33,085	203,334	8,830	73.1	349,980	212,237
Atchafalaya, Topeka & Santa Fe System	133 mos.	154,031	30,612	203,334	25,376	36,032	17,084	74.0	52,947	30,542
Atlanta & West Point	133 mos.	939,324	212,653	1,291,912	172,550	240,738	468,916	78.1	283,212	142,566
Atlanta & West Point	133 mos.	939,324	212,653	1,291,912	172,550	240,738	468,916	78.1	283,212	142,566
Atlanta & West Point	639 mos.	396,149	225,101	437,385	357,784	412,290	173,724	72.9	118,720	79,815
Atlanta & West Point	639 mos.	2,212,330	225,101	2,384,355	357,784	412,290	173,724	80.5	504,737	316,162
Western of Alabama	133 mos.	154,031	30,612	203,334	25,376	36,032	17,084	74.0	52,947	30,542
Atlanta, Birmingham & Coast	5,095 mos.	3,762,547	790,924	4,914,244	508,275	1,006,476	156,982	67.3	6,513,225	5,183,631
Atlanta, Birmingham & Coast	5,097 mos.	28,824,079	7,600,828	39,693,058	3,269,815	6,578,642	1,162,127	70.2	29,538,797	27,088,347
Atlanta, Birmingham & Coast	343 mos.	283,676	3,627	293,177	190,722	252,399	66,076	87.2	36,997,905	29,538,797
Atlantic Coast Line	343 mos.	1,909,717	17,139	1,966,503	190,722	252,399	66,076	87.2	130,488	49,152
Charleston & Western Carolina	6,370 mos.	17,703,133	1,260,512	19,005,481	1,865,298	4,221,815	434,908	63.8	1,926,864	1,330,249
Charleston & Western Carolina	6,370 mos.	11,004,553	7,715,718	124,266,742	11,440,705	28,125,981	2,947,692	65.7	11,387,684	7,930,136
Baltimore & Ohio	24 mos.	59,623	482,617	1,019,652	96,070	152,997	7,815	89.4	20,575	10,879
Baltimore & Ohio	24 mos.	470,499	482,617	1,019,652	96,070	152,997	7,815	89.4	20,575	10,879
Staten Island Rapid Transit	603 mos.	268,090	22,058	311,308	96,955	84,633	7,016	99.5	99,619	309,779
Staten Island Rapid Transit	603 mos.	3,315,092	137,524	3,585,985	609,727	621,765	37,369	64.9	1,260,297	810,802
Bangor & Aroostook	251 mos.	2,327,118	4,696	11,019,652	117,882	105,299	44,590	35.3	1,511,501	1,075,746
Bangor & Aroostook	251 mos.	11,012,206	4,696	11,019,652	117,882	105,299	44,590	35.3	5,813,070	4,017,044
Besmer & Lake Erie										
Besmer & Lake Erie										
Boston & Maine										
Boston & Maine										
Burlington, Rock Island										
Burlington, Rock Island										
Cambria & Indiana										
Cambria & Indiana										
Canadian Pacific Lines in Maine										
Canadian Pacific Lines in Maine										
Canadian Pacific Lines in Vermont										
Canadian Pacific Lines in Vermont										
Central of Georgia										
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Chesapeake & Ohio										
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Chicago & Eastern Illinois										
Chicago & Eastern Illinois										
Chicago & Illinois Midland										
Chicago & Illinois Midland										
Chicago & North Western										
Chicago & North Western										
Chicago, Burlington & Quincy										
Chicago, Burlington & Quincy										
Chicago, Great Western										
Chicago, Great Western										
Chicago, Indianapolis & Louisville										
Chicago, Indianapolis & Louisville										

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RAILWAY AGE

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF JULY AND SEVEN MONTHS OF CALENDAR YEAR 1941—CONTINUED

REVENUES AND EXPENSES OF RAILWAYS														
MONTH OF JULY AND SEVEN MONTHS OF CALENDAR YEAR 1941—Continued														
Name of road	Av. mileage operated during period	Operating revenues				Operating expenses				Operating ratio	Net from railway operation	Net railway operating income		
		Freight	Passenger	Total	(inc. misc.)	Way and structures	Maintenance of equipment	Traffic	Portation					
Chicago, Milwaukee, St. Paul & Pacific	10,854	\$11,073,366	\$916,443	\$12,000,000	\$2,028,083	\$1,864,685	\$2,028,083	\$255,548	\$4,000,353	\$8,570,241	65.3	\$4,563,959	\$3,283,239	\$482,791
Chicago, Rock Island & Pacific	10,855	62,940,033	5,216,759	68,156,792	10,604,224	12,453,189	10,604,224	1,618,317	2,826,064	13,078,301	70.3	22,200,478	16,094,478	3,506,266
Chicago, Milwaukee, St. Paul & Pacific	7,944	68,415,150	5,202,019	73,617,169	10,604,224	12,453,189	10,604,224	1,618,317	2,826,064	13,078,301	61.4	3,825,001	2,803,040	1,651,359
Chicago, Rock Island & Pacific	7,959	44,692,532	6,051,948	50,744,480	54,686,379	6,578,976	8,903,581	1,862,677	18,461,889	26,835,357	69.8	16,528,522	13,078,301	3,196,476
Chicago, Milwaukee, St. Paul & Pacific	1,629	1,551,322	161,281	1,712,603	1,832,180	274,296	271,545	39,616	718,345	1,369,626	74.8	462,554	340,559	13,793
Chicago, Rock Island & Pacific	1,629	9,115,933	938,296	10,054,229	10,816,722	1,371,310	1,812,237	277,261	4,699,706	6,822,916	79.7	2,193,806	1,394,282	505,559
Chicago, Milwaukee, St. Paul & Pacific	308	9,102,282	5,463	9,107,745	9,134,420	1,371,310	1,812,237	19,261	162,923	363,191	39.8	2,550,229	3,181,820	2,222,535
Chicago, Rock Island & Pacific	308	6,200,227	32,794	6,233,021	6,274,885	322,297	856,134	138,453	1,112,589	2,553,652	40.7	3,721,233	3,181,820	128,904
Clinchfield Railroad	759	589,112	71,782	660,894	714,215	111,552	120,443	11,899	234,927	505,346	70.8	208,869	146,868	111,421
Chicago, St. Paul, Minneapolis & Omaha	774	3,669,842	319,705	3,989,547	4,431,041	674,028	827,193	92,440	1,539,813	3,322,149	75.0	1,108,892	651,781	189,557
Clinchfield Railroad	804	533,779	78,547	612,326	697,244	61,569	77,888	22,009	194,341	389,129	55.8	308,115	270,248	270,458
Colorado & Southern	804	2,701,105	356,710	3,057,815	3,576,014	446,185	554,244	132,810	1,191,718	2,549,066	71.3	1,026,948	513,336	455,361
Fort Worth & Denver City	42	88,163	.....	88,163	134,418	10,956	10,956	888	40,086	65,777	48.9	68,641	33,879	29,432
Colorado & Southern	168	605,311	.....	605,311	68,623	68,623	68,623	4,821	301,307	481,633	51.3	457,918	250,239	226,579
Colorado & Wyoming	168	675,944	.....	675,944	739,861	100,372	117,897	34,655	245,639	587,650	79.4	152,211	14,103	12,353
Colorado & Greenville	849	2,762,370	116,319	2,878,689	3,032,74	502,032	502,032	44,617	943,331	1,857,380	62.5	1,113,485	865,138	556,410
Columbus & Greenville	849	17,137,948	527,133	17,665,081	18,274,787	3,354,648	3,354,648	297,150	6,184,015	12,320,119	67.4	1,054,668	4,703,251	2,993,580
Delaware & Hudson	995	4,276,342	579,957	4,856,299	5,360,938	890,018	890,018	782,687	13,880,927	3,617,428	67.5	1,743,510	1,067,310	312,145
Delaware & Hudson	995	27,106,485	3,707,270	30,813,755	34,181,793	2,068,913	2,068,913	6,035,988	13,880,927	23,786,403	69.6	10,593,590	6,297,924	3,168,386
Delaware, Lackawanna & Western	2,547	2,205,998	171,129	2,377,127	2,497,463	346,569	346,569	84,624	875,209	2,011,871	80.6	485,592	284,722	46,237
Delaware, Lackawanna & Western	2,548	13,569,366	95,282	13,664,648	15,252,320	2,028,558	2,028,558	591,288	11,338,58	12,350,139	84.5	2,368,507	930,914	798,857
Delaware & Hudson	232	206,373	35,019	241,392	252,444	34,855	34,855	18,583	387,934	586,605	88.0	65,813	40,429	301,480
Denver & Rio Grande Western	242	1,020,392	.....	1,020,392	1,121,194	211,493	211,493	960	2,878,435	6,337,772	35.4	1,411,648	1,018,230	224,621
Denver & Salt Lake	242	71,585	2,729	74,314	82,025	20,300	20,300	9,201	25,936	59,817	72.9	22,208	18,624	13,044
Denver & Salt Lake	242	351,764	16,609	368,373	427,240	83,300	83,300	6,575	173,932	362,309	84.8	64,931	140,936	24,505
Detroit & Mackinac	50	370,271	.....	370,271	371,125	193,987	193,987	9,182	609,373	1,522,840	41.0	218,841	101,823	26,358
Detroit & Toledo Shore Line	50	2,492,415	.....	2,492,415	2,498,331	251,156	251,156	61,313	2,878,435	6,337,772	43.5	1,411,648	1,018,230	224,621
Detroit & Toledo	472	701,077	325	701,402	736,831	59,633	59,633	13,494	160,102	344,562	46.8	392,269	266,433	247,422
Detroit & Toledo	472	5,218,888	1,637	5,220,525	5,434,454	390,862	390,862	89,029	1,133,858	2,445,833	45.0	2,988,621	2,084,017	1,854,631
Detroit, Toledo & Iron Range	542	4,503,392	14,039	4,517,431	5,204,128	272,988	272,988	3,821	1,646,137	3,268,007	72.3	3,991,396	3,271,547	3,271,547
Duluth, Missabe & Iron Range	175	139,914	1,479	141,393	144,555	24,453	24,453	2,164	52,818	105,947	75.3	38,608	28,619	16,879
Duluth, Missabe & Iron Range	175	924,731	7,465	932,196	954,102	167,012	167,012	14,513	378,319	731,522	76.7	222,580	148,833	34,602
Duluth, Missabe & Iron Range	390	2,228,039	26	2,228,065	2,523,221	195,746	195,746	16,054	768,630	1,359,170	53.9	1,164,051	832,666	681,524
Duluth, Missabe & Iron Range	390	14,458,791	26	14,458,817	16,491,637	878,567	878,567	217,232	5,353,167	9,249,144	56.1	7,242,493	5,115,180	4,030,732
Elgin, Joliet & Eastern	2,257	8,537,878	452,345	8,990,223	9,541,122	842,085	842,085	189,985	3,149,858	5,993,322	62.8	3,547,800	2,543,700	2,137,266
Elgin, Joliet & Eastern	2,259	52,775,273	2,688,576	55,463,849	59,123,544	4,451,022	4,451,022	1,286,638	20,955,689	38,715,323	65.5	20,408,221	14,659,933	12,303,657
Elgin, Joliet & Eastern	685	369,314	2,702,279	3,071,593	3,282,778	878,567	878,567	26,767	2,439,467	5,163,366	103.9	2,262,912	1,742,516	1,259,270
Elgin, Joliet & Eastern	685	3,911,235	26	3,911,261	4,451,122	1,211,521	1,211,521	1,141,031	2,439,467	5,163,366	69.5	2,262,912	1,742,516	1,259,270
Erie	329	400,588	33,973	434,561	458,154	49,039	49,039	19,271	167,255	317,868	69.4	140,286	123,463	125,661
Florida East Coast	329	2,502,001	176,115	2,678,116	2,862,343	307,801	307,801	132,492	1,092,617	2,089,760	73.0	772,583	659,906	317,966
Florida East Coast	408	745,197	10,123	755,320	820,773	167,503	167,503	62,509	285,048	678,106	86.7	19,097	48,303	86,336
Georgia Railroad	1,029	2,337,651	112,364	2,450,015	2,629,384	289,460	289,460	41,797	930,879	1,793,291	68.2	836,093	701,468	585,696
Georgia & Florida	1,029	16,155,915	577,525	16,733,440	17,898,648	1,319,915	1,319,915	272,745	6,458,874	12,019,379	67.2	5,879,269	4,901,164	4,082,091
Grand Trunk Western	172	894,879	17,920	912,800	1,052,685	268,466	268,466	18,637	453,970	948,449	90.1	104,236	39,061	335,014
Canadian National Lines in New England	8,073	12,266,688	535,181	12,801,869	13,853,494	1,840,217	1,840,217	211,378	3,053,652	6,818,769	49.2	7,034,795	4,907,667	4,842,638
Canadian National Lines in New England	8,069	56,149,900	2,686,390	58,836,290	64,021,721	4,456,849	4,456,849	1,456,849	18,226,372	41,125,214	64.2	22,896,507	15,183,517	8,993,946
Great Northern	234	1,103,052	2,196	1,105,248	1,141,919	34,067	34,067	59,857	342,229	775,870	70.3	366,049	248,317	211,750
Green Bay & Western	259	116,663	16,938	133,601	144,553	14,553	14,553	24,561	2,567	55,928	77.1	33,060	15,244	4,195
Green Bay & Western	259	810,011	94,347	904,358	974,920	94,347	94,347	19,674	391,668	741,647	76.1	233,273	111,255	31,170
Gulf & Ship Island	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

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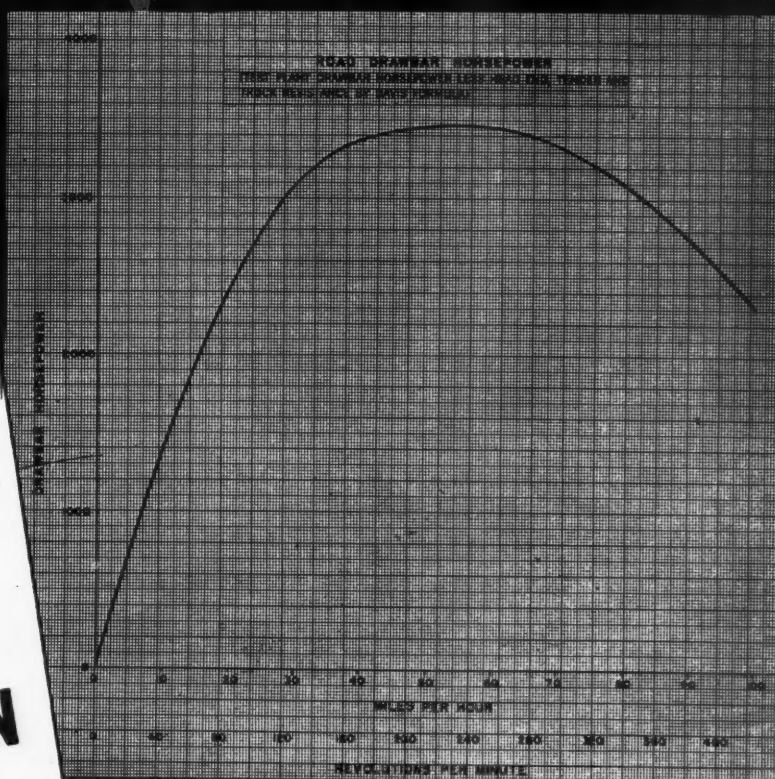


# HIGHER SUSTAINED DRAWBAR HORSEPOWER

*for Acceleration and Operating Speeds*

through  
the Application  
of...

**THE  
FRANKLIN  
SYSTEM  
OF  
STEAM  
DISTRIBUTION**



The Franklin System of Steam Distribution, by providing the following features, secures results such as are indicated in the above curve.

1. Separation of valve events, so that admission, cut-off, re-release and compression are independently controlled.
2. Absolutely fixed valve events at all speeds and all cut-offs.
3. Large inlet and exhaust passages and improved steam flow.
4. Reduced cylinder clearance volume.
5. Reduced weight of moving masses and reduced mechanical friction.

The Franklin System of Steam Distribution is offered to the railroads to meet the increasing demand for a more complete utilization of the potential power in every pound of steam.



**FRANKLIN RAILWAY SUPPLY COMPANY, INC.**

NEW YORK  
CHICAGO

In Canada: FRANKLIN RAILWAY SUPPLY COMPANY, LIMITED, MONTREAL

September 6, 1941

30

## REVENUES AND EXPENSES OF RAILWAYS

MONTH OF JULY AND SEVEN MONTHS OF CALENDAR YEAR 1941—CONTINUED													
Name of road	Av. mileage operated during period	Operating revenues					Operating expenses			Operating ratio	Net from operation	Net railway operating income	
		Freight	Passenger	Total	(inc. misc.)	Way and structures	Equip-ment	Traffic	Trans-portion			Total	Operating income
Gulf, Mobile & Ohio	1,972	\$1,885,353	\$2,010,938	\$3,896,291	\$299,005	\$299,924	\$81,855	\$542,857	\$1,331,853	\$438,085	\$679,085	\$339,648	\$131,808
	1,973	12,247,006	13,094,176	25,341,182	1,769,630	2,020,484	587,936	3,711,538	8,803,482	2,785,194	4,290,690	2,075,174	506,475
	4,951	8,866,608	10,486,267	19,352,875	1,243,143	2,271,267	198,775	3,385,596	7,438,945	1,719,483	19,165,647	13,303,181	5,755,227
Illinois Central	4,950	55,745,711	6,334,978	62,080,689	67,105,529	7,101,548	14,295,818	1,466,971	22,684,129	47,939,882	19,165,647	13,303,181	5,755,227
	1,570	1,421,634	79,058	1,500,692	158,775	261,907	31,211	548,209	1,046,859	368,442	526,580	312,131	114,485
	1,587	8,761,555	491,249	9,252,804	9,838,853	1,521,492	227,611	3,660,344	6,700,858	2,100,968	3,137,997	1,765,034	523,706
	6,321	10,288,242	1,035,862	11,324,104	12,059,706	2,533,174	229,986	3,933,805	8,485,804	2,083,405	3,573,902	2,004,340	643,915
Illinois Central System	6,337	64,507,266	6,826,227	71,333,493	8,062,014	15,817,310	1,694,589	26,344,473	54,640,740	15,363,685	22,303,644	15,127,625	6,433,915
Illinois Terminal	477	511,157	65,128	576,285	649,531	78,952	19,435	181,854	361,537	205,489	287,994	180,576	98,352
	477	3,048,550	483,144	3,531,694	394,825	511,655	124,410	1,234,363	2,322,842	1,043,327	1,478,151	882,482	633,850
	879	1,412,297	486,266	1,898,563	218,553	264,376	56,443	431,011	1,032,751	445,358	597,358	350,213	247,630
Kansas City Southern	879	8,669,247	438,271	9,107,518	1,008,587	1,566,667	386,928	2,836,033	6,229,496	2,947,091	3,779,091	2,373,288	1,889,008
Kansas, Oklahoma & Gulf	328	211,138	482	211,620	24,823	14,709	8,889	44,748	103,938	110,676	310,676	180,576	98,352
	328	1,394,642	2,826	1,397,468	106,798	75,851	61,110	310,001	623,700	788,939	305,123	215,748	247,630
	156	359,162	35	359,197	30,066	26,484	837	59,987	131,972	302,382	1,229,063	815,445	640,229
Lake Superior & Ishpeming	156	1,646,669	438	1,647,107	198,205	196,166	4,423	310,557	760,387	786,302	2,373,288	815,445	640,229
Lehigh & Hudson River	96	187,817	.....	187,817	20,920	25,362	3,624	50,010	105,877	82,534	110,676	69,429	35,647
	96	1,208,825	.....	1,208,825	128,221	191,382	26,030	344,758	733,188	482,783	788,939	501,544	434,317
	190	522,987	.....	522,987	30,095	66,679	142,450	1,676,554	2,616,554	82,534	305,123	215,748	247,630
Lehigh & New England	190	2,871,259	.....	2,871,259	219,920	442,557	51,488	855,591	1,676,554	82,534	1,216,132	865,673	670,386
Louisiana & Arkansas	4,803	8,989,226	775,434	9,764,660	1,009,336	1,960,602	177,142	3,085,953	6,516,842	3,777,855	2,232,902	1,378,576	604,611
	4,803	56,789,245	4,796,147	61,585,392	4,676,290	12,945,966	1,276,331	20,707,008	43,369,104	12,653,839	22,011,298	13,775,839	9,156,257
	991	1,003,355	133,895	1,137,250	1,237,017	215,113	16,028	405,284	867,796	3,699,221	2,903,593	2,448,500	1,479,980
	991	7,316,118	589,875	7,905,993	1,092,483	1,390,166	82,416	2,860,343	5,658,485	66.1	2,903,593	2,448,500	1,479,980
Louisville & Nashville	352	123,338	11	123,349	18,836	8,708	2,490	32,151	67,696	58,191	47,034	39,330	31,602
	352	732,604	39	732,643	95,984	68,885	16,816	213,974	438,428	308,420	232,466	177,749	166,277
	1,409	966,386	7,774	974,160	195,518	144,568	48,975	308,871	736,979	275,505	214,867	166,667	77,567
Minneapolis & St. Louis	1,409	5,346,419	73,852	5,420,271	1,050,457	947,871	349,775	1,999,367	4,612,405	915,757	1,252,405	633,142	296,286
Minneapolis, St. Paul & Sault Ste. Marie	4,271	3,353,626	133,374	3,487,000	599,650	474,848	66,236	1,159,248	2,404,426	1,308,736	976,816	898,272	439,047
	4,270	17,247,683	518,797	17,766,480	3,063,938	2,943,699	442,524	7,154,573	17,288,299	4,869,944	3,186,026	2,352,089	1,288,139
	550	201,823	7,672	209,495	71,435	50,728	7,460	95,214	231,323	93,406	76,233	70,466	36,365
	550	1,598,355	50,180	1,648,535	399,344	279,741	50,733	602,086	1,376,905	407,855	292,215	274,448	152,033
Duluth, South Shore & Atlantic	152	93,777	702	94,479	17,405	7,936	2,163	25,023	56,479	44,780	39,008	33,984	18,071
	152	485,369	4,490	489,859	124,789	47,109	15,765	158,603	371,862	128,618	166,371	101,279	36,652
	158	103,715	1,176	104,891	105,763	26,330	7,842	72,197	68.3	33,566	22,043	21,432	54,304
	158	662,918	20,441	683,359	163,060	81,854	54,029	156,416	484,335	209,633	156,257	115,070	54,304
Spokane International	365	99,596	1,650	101,246	30,434	14,100	8,102	37,972	96,010	11,793	6,443	3,734	34
	365	714,705	9,900	724,605	189,131	85,812	53,608	255,248	620,641	154,626	122,837	47,783	37,587
	193	263,262	243	263,505	33,702	26,243	3,520	55,181	124,706	98,705	142,919	82,661	56,899
Missouri & Arkansas	193	1,463,178	1,354	1,464,532	199,069	157,601	22,678	349,324	744,893	467,104	378,276	307,085	307,085
Missouri-Illinois	3,293	3,032,253	237,958	3,270,211	441,230	489,461	1,736,141	19,845,737	42,069,410	1,084,133	1,293,763	758,880	457,020
	3,293	15,693,671	1,475,168	17,168,839	2,602,678	2,993,041	751,197	6,696,905	13,112,104	3,560,740	4,904,373	2,188,261	858,463
	7,139	9,233,194	754,351	9,987,545	1,603,319	1,702,291	1,736,141	19,845,737	42,069,410	3,242,409	3,911,979	2,825,257	1,313,866
Missouri-Kansas-Texas Lines	7,144	51,068,464	4,426,409	55,494,873	7,966,573	10,643,261	1,736,141	19,845,737	42,069,410	14,788,790	12,010,732	4,009,928	4,009,928
Missouri Pacific	1,772	1,086,723	59,507	1,146,230	202,239	188,593	44,179	403,840	893,783	327,186	351,254	191,979	19,273
	1,772	8,865,068	319,996	9,185,064	1,406,001	1,317,658	306,480	2,961,074	6,361,074	2,947,227	2,029,856	1,607,813	1,607,813
	1,155	924,515	123,207	1,047,722	176,288	207,534	28,984	443,135	913,133	252,549	2,947,227	1,21,281	48,145
	1,155	6,266,906	621,795	6,888,701	1,186,584	1,362,313	201,643	2,997,898	6,142,837	1,107,877	1,560,075	606,340	284,826
Gulf Coast Lines	1,772	1,086,723	59,507	1,146,230	202,239	188,593	44,179	403,840	893,783	327,186	351,254	191,979	19,273
	1,772	8,865,068	319,996	9,185,064	1,406,001	1,317,658	306,480	2,961,074	6,361,074	2,947,227	2,029,856	1,607,813	1,607,813
	1,155	924,515	123,207	1,047,722	176,288	207,534	28,984	443,135	913,133	252,549	2,947,227	1,21,281	48,145
	1,155	6,266,906	621,795	6,888,701	1,186,584	1,362,313	201,643	2,997,898	6,142,837	1,107,877	1,560,075	606,340	284,826
International Great Northern	172	539,258	626	540,484	51,215	40,131	514	108,592	204,608	337,819	291,581	198,485	142,481
	172	3,048,377	3,963	3,052,340	3,067,409	215,852	3,446	680,890	1,186,236	1,881,173	1,568,997	1,002,098	898,562
Monongahela	172	539,258	626	540,484	51,215	40,131	514	108,592	204,608	337,819	291,581	198,485	142,481
	172	3,048,377	3,963	3,052,340	3,067,409	215,852	3,446	680,890	1,186,236	1,881,173	1,568,997	1,002,098	898,562

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### RARITAN RIVER BRIDGE

Spanning the Raritan River, below the city of New Brunswick, N. J. near the point known to the Indians as the Great Crossing, the Raritan Bridge carries the tremendous traffic of Route No. 1 between New York and Philadelphia. It was built in 1929 and was awarded first prize in the Phebe Hobson Fowler Architectural Award for 1930 as the most beautiful bridge of its type. The country above and below the bridge has a noted history and the

river area has been the subject of many historic novels.

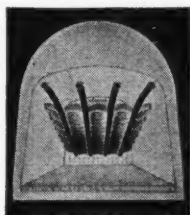
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For 32 years the Security Sectional Arch has proved to be the most effective means of fuel conservation. While the basic design remains unchanged, it has been continuously developed by the American Arch Company in keeping with the progress in locomotive design, and today, it is still an essential factor in the economical operation of modern steam power.

*There's More to SECURITY ARCHES Than Just Brick*

**HARBISON-WALKER  
REFRACTORIES CO.**

***Refractory Specialists***



**AMERICAN ARCH CO.  
INCORPORATED**

60 EAST 42nd STREET, NEW YORK, N. Y.

***Locomotive Combustion  
Specialists***

## REVENUES AND EXPENSES—MONTHS OF CALENDAR YEAR 1941—Continued.

Continued on next left-hand page

San Francisco & Texas



*By far*

**the Lowest Initial Cost**

**for Horsepower...**

...a modern steam locomotive equipped with a small flue design of superheater ... and a feedwater heater, preferably the Elesco closed or open type.



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SUPERHEATERS • FEEDWATER HEATERS  
AMERICAN THROTTLES • STEAM DRYERS  
EXHAUST STEAM INJECTORS • PYROMETERS

THE  
**SUPERHEATER**  
C O M P A N Y

Representative of  
AMERICAN THROTTLE COMPANY, INC.  
60 East 42nd Street, NEW YORK  
122 S. Michigan Ave. CHICAGO

Montreal, Canada  
THE SUPERHEATER COMPANY, LTD.

## REVENUES AND EXPENSES OF RAILWAYS

MONTH OF JULY AND SEVEN MONTHS OF CALENDAR YEAR 1941—CONTINUED

MONTH OF JULY AND SEVEN MONTHS OF CALENDAR YEAR 1941—CONTINUED														
Av. mileage operated during period	Name of road	Operating revenues				Operating expenses				Operating ratio	Net from railway operation	Net railway operating income		
		Freight	Passenger	Total (inc. misc.)	Maintenance of way and structures	Equipment	Traffic	Transportation	Total			1941	1940	
1,617	St. Louis Southwestern Lines	\$2,131,974	\$64,566	\$2,196,540	\$2,278,262	\$365,213	\$292,390	\$85,956	\$605,707	\$1,429,157	\$849,105	\$603,804	\$428,165	\$114,356
1,626	Seaboard Air Line	14,138,950	363,012	15,006,665	15,064,943	1,983,563	2,037,015	594,560	4,089,901	9,262,369	5,744,096	4,560,625	3,460,447	1,409,902
4,310	Southern Railway	3,838,414	871,026	5,064,943	5,064,943	581,438	968,717	177,855	1,735,090	27,036,468	9,500,018	7,185,344	1,016,451	15,934
4,310	Alabama Great Southern	26,797,032	6,846,920	36,536,486	36,536,486	4,844,406	6,548,789	1,305,955	12,610,994	27,036,468	9,500,018	7,185,344	6,036,665	2,162,699
6,567	Southern Railway	9,990,545	1,438,442	12,119,359	12,119,359	1,252,216	1,973,221	177,070	3,639,574	48,143,979	28,039,930	19,451,963	17,697,667	9,916,902
6,567	Alabama Great Southern	63,575,336	7,490,622	76,183,909	76,183,909	8,020,467	12,492,064	1,227,865	23,338,991	48,143,979	28,039,930	19,451,963	17,697,667	9,916,902
315	Cincinnati, New Orleans & Texas Pacific	762,984	136,919	954,036	954,036	87,562	186,290	16,821	236,314	3,777,392	2,110,767	1,256,128	1,243,597	824,609
315	Georgia Southern & Florida	4,822,411	681,794	5,888,159	5,888,159	616,565	1,217,911	111,966	1,649,124	3,777,392	2,110,767	1,256,128	1,243,597	824,609
337	Cincinnati, New Orleans & Texas Pacific	1,792,829	176,904	2,046,505	2,046,505	185,877	394,355	32,133	464,407	1,129,956	578,924	356,520	362,534	369,172
337	Georgia Southern & Florida	11,017,185	1,107,995	12,734,579	12,734,579	1,202,618	2,437,421	214,110	3,061,304	7,306,021	5,428,558	3,562,520	3,625,384	2,798,730
398	New Orleans & Northeastern	224,178	39,954	288,725	288,725	41,679	47,332	2,255	102,859	203,586	748,816	65,079	48,498	6,491
398	Southern Pacific	1,565,403	379,442	2,221,144	2,221,144	273,207	324,182	17,271	791,662	1,472,328	916,549	578,924	378,704	78,605
204	New Orleans & Northeastern	404,170	70,248	482,275	482,275	38,683	41,890	8,865	112,820	221,070	180,958	149,059	149,059	17,801
204	Southern Pacific	2,358,718	392,269	2,926,022	2,926,022	292,782	259,900	59,640	761,483	1,472,696	954,073	754,250	552,167	224,699
8,591	Southern Pacific	17,257,050	2,319,468	19,576,518	19,576,518	1,713,180	3,226,542	377,079	7,126,195	13,404,640	6,705,550	5,521,647	1,915,905	1,915,905
8,597	Southern Pacific	100,464,983	14,132,393	114,597,376	114,597,376	10,515,465	20,321,529	2,641,511	42,936,672	82,559,246	41,235,702	32,518,629	26,287,402	9,163,917
.....	Southern Pacific Steamship Lines	44,202	274	48,275	48,275	54,830	22,822	7,723	107,814	308,894	260,619	267,938	268,601	27,091
.....	Texas & New Orleans	4,206,818	54,328	4,469,994	4,469,994	223,808	497,318	85,907	3,043,624	4,056,349	413,645	256,802	242,480	22,818
4,417	Spokane, Portland & Seattle	4,199,341	430,649	4,941,685	4,941,685	630,197	833,466	121,860	1,493,182	3,280,178	1,661,507	1,339,837	1,055,993	33,262
4,417	Texas & New Orleans	26,989,154	2,677,571	31,953,726	31,953,726	4,141,907	5,208,235	869,117	9,811,336	21,477,222	10,474,504	8,268,708	6,377,508	1,757,382
.....	Tennessee Central	1,097,944	45,975	1,207,787	1,207,787	179,600	97,468	11,670	365,204	688,091	519,696	406,286	289,837	17,514
948	Spokane, Portland & Seattle	6,253,701	222,169	6,891,889	6,891,889	1,320,524	634,650	74,650	2,172,917	4,171,539	2,474,360	1,972,363	1,368,330	274,643
286	Tennessee Central	235,761	5,998	235,300	235,300	48,496	39,724	7,314	82,083	188,734	66,566	43,859	31,996	20,389
.....	Texas & Pacific	1,522,067	32,013	1,685,037	1,685,037	272,588	252,881	49,210	550,305	1,197,686	487,351	338,469	255,763	166,380
.....	Texas Mexican	2,150,308	286,574	2,643,353	2,643,353	267,266	514,550	75,800	785,671	1,765,194	878,159	619,971	501,991	293,911
1,893	Texas & Pacific	14,185,001	1,733,131	17,410,970	17,410,970	1,833,895	3,277,483	530,123	5,193,182	11,668,096	5,742,874	4,243,552	3,602,158	2,491,705
162	Union Pacific System	102,925	2,177	754,757	754,757	107,052	81,456	22,372	234,402	497,705	257,052	197,974	170,701	6,252
162	Utah	59,126	.....	59,126	59,126	66,136	152,526	3,196	338,879	74,314	4,405	37,674	33,695	6,252
239	Toledo, Peoria & Western	242,204	1	248,447	248,447	45,564	15,575	20,720	54,749	150,958	97,489	56,667	38,296	25,633
239	Union Pacific System	13,793,363	2,116,416	19,255,314	19,255,314	2,611,907	4,009,347	446,826	6,000,014	13,911,680	6,189,291	3,591,615	2,574,411	172,884
9,882	Union Pacific System	91,346,670	11,559,203	111,660,154	111,660,154	13,733,564	25,550,857	3,138,321	36,734,193	84,825,375	26,834,779	15,005,608	10,384,869	7,738,849
.....	Utah	59,126	.....	59,126	59,126	66,136	152,526	3,196	338,879	74,314	4,405	37,674	33,695	6,252
111	Virginian	422,699	3,691	2,488,254	2,488,254	188,854	441,792	25,620	2,273,537	6,997,415	8,289,483	4,256,023	4,531,173	6,176,563
111	Wabash	2,424,669	18,525	15,286,898	15,286,898	1,303,060	2,968,999	178,636	2,273,537	6,997,415	8,289,483	4,256,023	4,531,173	6,176,563
653	Ann Arbor	14,858,657	18,525	15,286,898	15,286,898	1,303,060	2,968,999	178,636	2,273,537	6,997,415	8,289,483	4,256,023	4,531,173	6,176,563
2,409	Western Maryland	4,701,042	261,963	5,283,876	5,283,876	670,544	655,906	135,268	1,707,841	3,354,139	1,929,737	1,347,287	999,246	255,965
2,409	Western Pacific	28,757,047	1,617,992	32,476,824	32,476,824	3,893,621	4,962,016	1,069,640	11,295,129	22,325,129	10,151,676	7,665,114	5,336,433	1,274,511
294	Ann Arbor	412,837	3,188	437,949	437,949	43,556	53,385	15,039	165,350	290,286	147,663	90,792	77,155	140,067
.....	Western Pacific	2,585,147	15,394	2,677,512	2,677,512	220,400	471,375	96,791	1,085,829	1,962,307	715,205	472,967	377,075	140,067
859	Western Maryland	1,825,951	13,620	1,920,610	1,920,610	251,821	398,330	40,758	466,195	1,214,413	706,197	466,197	503,315	396,007
1,195	Western Pacific	11,970,269	53,182	12,447,706	12,447,706	1,445,084	2,651,557	288,662	3,093,558	7,861,102	4,386,604	3,246,604	3,342,797	2,851,573
1,195	Western Pacific	1,844,482	79,945	1,975,727	1,975,727	241,694	339,228	71,375	658,688	1,418,912	556,815	413,300	298,267	137,412
.....	Wheeling & Lake Erie	10,869,992	421,830	11,551,584	11,551,584	1,557,216	2,058,879	482,316	4,228,092	8,734,537	2,817,047	2,100,891	1,416,493	443,399
507	Wheeling & Lake Erie	1,808,522	1	1,932,843	1,932,843	263,949	311,591	37,402	526,288	1,176,850	755,993	231,244	356,628	476,517
507	Wheeling & Lake Erie	11,115,299	33	11,723,954	11,723,954	1,399,631	2,333,223	265,155	3,195,382	7,442,660	4,281,294	1,476,769	2,337,435	2,612,256